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TABLE OF CONTENTS

51 **EDITORIAL**
Aging in Rhode Island: The Physical, Psychological, and Social Changes of the 21st Century
Marsha D. Fretwell, MD

CONTRIBUTIONS —
Guest Editor, Marsha D. Fretwell, MD

55 **Older Rhode Islanders: Demography, Health Status and the Implications for the Practice of Medicine**
John B. Murphy, MD
Rebecca A. Silliman, MD, PhD

62 **Common Mental Health Problems in Geriatric Practice Part I. Dementia, Depression, Anxiety, and Prescription Drug Toxicity**
Barry S. Fogel, MD
Marsha D. Fretwell, MD

68 **Common Mental Health Problems in Geriatric Practice Part II. Insomnia, Chronic Pain, Troubled Families, and other Dilemmas**
Barry S. Fogel, MD
Marsha D. Fretwell, MD

75 **Falls**
Douglas P. Kiel, MD, MPH

81 **Assessment of Disruptive Behavior in the Nursing Home: Stories and Strategies**
Josef Sternberg, MD, PhD
William M. Whelihan, PhD

87 **Ageism Among Physicians: Fundamental Questions**
Mark L. Traines, MD

COLUMNS

91 **CONTEMPORARY PROBLEMS IN MEDICINE**
Malpractice Litigation and the Physician
Howard S. Sturim, MD

95 **HEALTH BY NUMBERS**
Injury Mortality among the Elderly

96 **MONTHLY VITAL STATISTICS REPORT**

Cover: This month's cover illustration is a drawing entitled "Head of an Old Man", 1521, Albrecht Dürer.

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EDITORIAL

Aging in Rhode Island: The Physical, Psychological, and Social Challenges of the 21st Century

Aging is a phenomenon that is experienced by all living organisms. Encompassing that period in the lifespan that follows growth and maturity and precedes death, it has presumably been a reality for individuals since the evolutionary beginnings of man. Depending on individual genetic endowments, there has always been a tremendous variation in the length and nature of the experience of aging in different individuals, families, and cultures or societies of the world. That is, since recorded history, there have been individuals who have succeeded in extending their time after physical maturity by decades, thereby approaching the apparent biological limit of 115 years of life for Homo sapiens. The most remarkable aspect of aging in the late 20th century is the increase in the number of individuals who are successfully extending the life-years between maturity and death.

In this issue of the *Rhode Island Medical Journal,* we present a series of articles written by individuals affiliated with the Program of Medicine at Brown University who have a special interest in aging, older patients, and the challenges that the increasing number of old and very old individuals present to health care educators and providers. In the first article, "Older Rhode Islanders: Demography, Health Status and the Implications for the Practice of Medicine," Drs John Murphy and Rebecca Silliman document the increases in numbers of older persons, describe the prevalence of diseases and functional disabilities in this group, and discuss the implications of this information on the structure and processes of health care delivery in Rhode Island. Following this, articles on specific physical, psychological, and social dysfunctions of frail older individuals are presented. Dr Kiel presents information about falls and the fear of falling as one of the leading causes of injury, disability, and death among frail older individuals. Drs Fogel and Fretwell outline the major emotional and cognitive disorders that effect older individuals and discuss practical primary care approaches to their management. Drs Sternberg and Whelihan describe the problem of disruptive behavior in older patients, a situation that produces tremendous stress on the family and social support systems.

The final paper explores the influence of age and ageism on the experience of physicians in training and practice. Here, Dr Traines discusses his experiences challenging the stereotype of aging held by Brown University medical students; he traces some of the difficulties that physicians have with their older patients regarding the fundamental conflict between the biomedical model of medical practice and the complex biopsychosocial and functional needs of frail older patients.

This series of articles clearly describes the challenges that the aging of our population in Rhode Island presents now and will increasingly present as we move into the 21st century. However, it is our own acceptance of the inevitability of death as the good and natural conclusion to each person's life that will allow us to help others achieve an acceptable quality of life as they age. Our own acceptance of the processes of aging and death opens the way for more empathetic relationships with our older patients, relationships that will lead to a more accurate identification of their needs. The cure of acute diseases, the current singular focus of our health care system, must shift to a more secondary role as the maintenance of optimal physical and mental function and the prevention of loss of dignity and personal autonomy become more central to our approach to care.

Marsha D. Fretwell, MD
Practicing geriatrician and academic physician at the Roger Williams General Hospital, Brown University Program in Medicine

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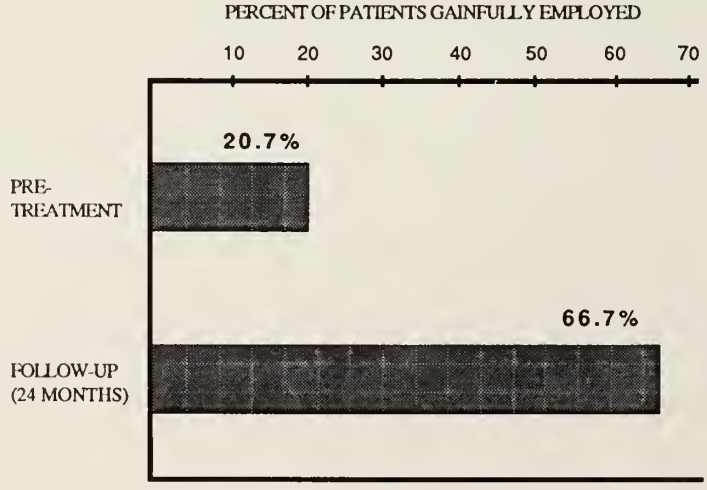

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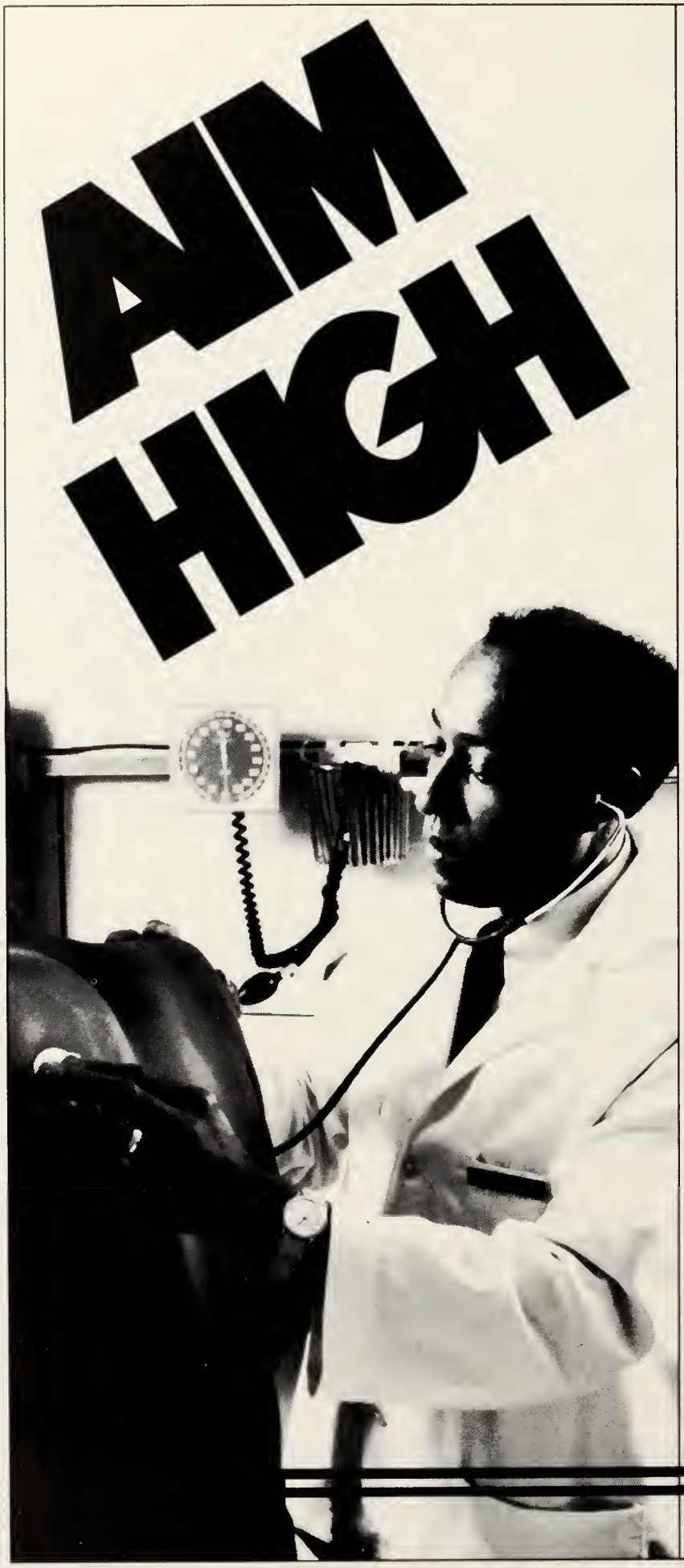

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AIR FORCE

Older Rhode Islanders: Demography, Health Status and the Implications for the Practice of Medicine

John B. Murphy, MD
Rebecca A. Silliman, MD, PhD

Rhode Islanders are older! In 1900, 4.6% of the Rhode Island population was 65 years of age or older. By 1980, 13.4% (126,922) of the state's population entered this age group.

We live in a society where many people live beyond the age of vigorous health. This "graying of America" is associated with increasing concerns about issues which range from financial costs to quality of life. These issues have been well aired in lay and professional publications, but major misconceptions and biases still persist regarding the nature and characteristics of our elderly population. Physicians and other health care providers in many cases have a very poor understanding of the characteristics of the older population. Nonetheless, the "geriatric imperative" has staggering implications for the health care delivery in the United States and particularly in Rhode Island. A clear understanding of the characteristics of Rhode Island's elderly population is important to all involved if the challenge of caring for them is to be adequately met.

This review will provide a description of the characteristics of the elderly population in Rhode Island. Extensive data on the characteristics of older Americans have been compiled over the last 10-15 years, but much less data exist for the elderly in Rhode Island. Nonetheless, the Rhode Island Department of Health has amassed a considerable amount of valuable information as has the Brown University Center for Gerontology and Health Care Research. Wherever possible in this review we utilize Rhode Island based data and in only a few instances will extrapolations be made from national data to the population of Rhode Island. Demographic, health status, and health care utilization characteristics of elderly Rhode Islanders will be reviewed as will the implications of these characteristics for the practice of medicine in Rhode Island.

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Rebecca A. Silliman, MD, PhD, is Assistant Professor of Medicine and Community Health at Brown University and Director of the Division of Geriatrics at Roger Williams General Hospital, Providence, Rhode Island.

Demographics

Rhode Islanders are old! In 1900, 4.6% of the Rhode Island population was 65 years of age or older.[20] By 1980, 13.4% (126,922) of the state's population entered this age group.[1] This is greater than the national average of 11.3% and places Rhode Island in the number three position (behind Florida and Arkansas) in a rank order of states based on the percent of population 65 years and older and first among states for percent of population 85 years and older.[2]

The actual number of elderly persons and the elderly population expressed as a percentage

ABBREVIATIONS USED:
PAC: primary care areas

of the total population are both expected to increase dramatically in Rhode Island and throughout the United States in the next fifty years. This surge in the population is the direct result of the post World War II "baby boom".[3] The impact of the baby boom cohort on the growth in the elderly population over the next fifty years in Rhode Island will be just as dramatic as nationally.[6] The Rhode Island population (all ages) is projected to increase by 8.5% between 1980 and the year 2040.[1] In contrast, those 65 and over will increase by 37.5% from roughly 127,000 to just over 200,000 in the same time frame (Table 1.)[1] More impressive than the projected increase in the 65 and over population are the increases anticipated for the 75 and over and 85 and over groups. Rhode Islanders age 75 years and over, based on Rhode Island Statewide Planning Program data, are expected to increase by 91.5% between 1980 and 2040.[1] The oldest old (those 85 and over) based on national projections[4] applied to Rhode Island census data[5] can be expected to increase 600% in the same period.

The average life expectancy at birth for Rhode Islanders is slightly greater than the national average. In 1980 the national average life expectancy for both sexes was 73.7 years, whereas in Rhode Island the average person could be expected to live just under 75 years.[2,6] If national trends can be applied to Rhode Island, this figure has likely increased significantly since the last census in 1980. However, life expectancy at age 65 or later is a more startling figure to many and perhaps a more useful one to practicing physicians and older Rhode Islanders. Rhode Islanders who have attained their 65th birthday can be expected to live a long time, to 79 for males and to 83 for females.[6] These figures are roughly comparable to national statistics.

Although as a state Rhode Island is old, the elderly population is not evenly distributed throughout the state. Rhode Island is comprised of 22 health service areas known as primary care areas (PACs). The PACs are aggregations of towns or cities based on patterns of health service utilization. Fifty-five percent of the state's elderly population is located in just eight PACs although these eight account for only 43% of the state's population.[4] Pawtucket and Central Falls are the most extreme examples of this maldistribution with 19.7% and 19.2% respectively of their populations 65 and older (Table 2). Providence and Woonsocket also have large elderly populations whereas the elderly are under represented in southern coastal PACs.

Pawtucket and Central Falls have 19.7% and 19.2% respectively of their populations 65 and older.

In 1986 there were 101 nursing homes with 25 or more beds in the state of Rhode Island.[17] The bed rate for Rhode Island (number of beds per thousand residents 85 years of age and over) at that time was 681.2 while the national average was 582.2.[17] In 1980 roughly 5% of elderly Americans resided in nursing homes while in Rhode Island the figure was slightly higher at roughly 6.5%.[1]

Table 1 Population Projections: Rhode Island and the United States

Year	Age 65+ Nos. (% of Population) RI	Age 65+ Nos. (% of Population) US	Age 75+ Nos. (% of Population) RI	Age 75+ Nos. (% of Population) US	Age 85+ Nos. (% of Population) RI	Age 85+ Nos. (% of Population) US
1980*	126,922 (13.4)	25 million (11.3)	51,359 (5.4)	9967 (4.4)	12,908 (1.4)	2.2 million (1.0)
1990**	146,147 (14.9)	31.8 million (12.7)	58,384 (6.0)	13.7 million (5.5)	16,000 (1.6)++	3.5 million (1.4)
2020**	175,174 (16.8)	51.4 million (17.3)	66,936 (6.4)	21.6 million (7.3)	32,000 (3.7)+	7.1 million (2.4)
2040**	200,610 (19.6)	66.7 million (21.6)	98,351 (9.6)	37.7 million (12.2)	64,000 (7.6)+	12.8 million (4.2)

*1980 Census Bureau, actual figures

**Based on middle census bureau projections as published in ref. #2,3

+Extrapolations based on 1980 census bureau data and US population assumptions for 3 and 6 fold growth of the 85+ population by 2020 and 2040.

++Projections of the population of states, Current Population Reports, Population Estimates and Projections, US Dept. of Commerce, P-25, No. 1017, 1988.

Table 2 Age Distribution of Primary Care Areas*

Primary Care Areas	% 65 and older
Pawtucket	19.7
Central Falls	19.2
Inner City Providence	17.3
Rest of Providence	17.2
Woonsocket	17.0
Cranston	16.2
Barrington-Warren-Bristol	13.8
Charlestown-Richmond-Hopkinton-Westerly	13.7
Warwick	12.6
East Providence	12.3
Cumberland-Lincoln	12.3
Johnston	10.5
North Providence	10.4
Foster-Gloucester-Scituate	10.3
Middletown-Portsmouth	10.1
Burrillville-Smithfield-North Smithfield	9.8
Newport	8.8
Coventry-West Warwick-East & West Greenwich	8.8
Tiverton-Little Compton	8.7
Exeter-North Kingstown-Jamestown	8.2
South Kingstown-Narragansett	7.9

*Adapted from Table 1 - 1985 RI Health Interview Survey (4)

Health Status

The health status of elderly Rhode Islanders is of importance to health care providers, researchers, the State Department of Health, those involved in the financing of health care, and, of course, the residents of the state. Numerous measures of health status exist by which to measure a population's health and depending upon the subpopulation of interest, the data will vary greatly. Self-rated health, mortality, prevalence of chronic conditions, and functional status will be examined. Because there is such a disparity between the health of nursing home residents and that of community-dwelling elders, health status will be discussed separately for each group. Furthermore, since health status is a relative term, comparisons will be made with national data whenever possible.

Older Rhode Islanders generally characterize their health favorably. When asked to rate their health as excellent, very good, good, fair, or poor as part of the 1985 Rhode Island Health Interview Survey almost two thirds (65%) of those aged 65-74 raged their health as good or better; and the same was true for those age 75 or more (63%).[4] However, when compared to the population of the United States, it is clear that Rhode Islanders rate their health less well than the nation as a whole (Table 3). The major difference between Rhode Islanders' self-rated health and national data is that many fewer Rhode Islanders rate their health as excellent and many more rate their health as fair or poor.

In 1980 roughly 5% of elderly Americans resided in nursing homes while in Rhode Island the figure was slightly higher at roughly 6.5%.

The leading causes of death for the population age 65 and older in Rhode Island and the United States are listed in Table 4. Heart disease is by far the leading cause of death and is almost twice as common as the next leading cause, cancer. Vascular disease in general (heart disease, cerebrovascular disease, and peripheral vascular disease combined) accounts for more than 50% of all deaths in the 65+ age group. Chronic obstructive lung disease (and allied conditions) is the Number 4 killer and in Rhode Island diabetes is Number 5 (nationally diabetes is 6th and pneumonia/influenza is 5th). Although dif-

Table 3 Self-assessment of Health: Rhode Island*/US** Percent of Population

Age (yrs.)	Excellent RI/US	Very Good RI/US	Good RI/US	Fair or Poor RI/US
64-75	10/17	23/23	32/33	35/27
75+	9/15	21/20	33/32	37/34

*RI Health Interview Survey, 1985 (Ref. #4)

**Health United States, 1989, Household Interviews 1983-88 (Ref. #7)

ferences do exist between Rhode Island and national data, the rank order is very similar and rates are reasonably comparable.

. . . almost 30,000 elderly Rhode Islanders are unable to perform their major daily activity and almost 50,000 individuals have some limitations in daily activities.

The prevalence of five of the most common chronic conditions found in older populations is listed in Table 5. As in most surveys, arthritis and hypertension are at the top of the list. Heart conditions, visual impairments, and diabetes, are also very common. Almost three-fourths of elderly Rhode Islanders (just over 100,000 individuals) report one or more significant chronic health-related conditions.[4] Hearing impairments, for which no Rhode Island data could be found, have been reported in roughly 10-30% of elderly populations nationally.[9] Depression is undoubtedly a prevalent condition as well, and if one were to extrapolate from national data[10] one would predict that 1-3% of elderly Rhode Islanders (1,500-4,500 elders) would have a "major depression" at any one time. Also based on national data, a much higher percentage (8-27%) of the older population would be expected to suffer from depressive symptoms and a comparable number of hospitalized or chronically ill elders would be projected to have major depressions. The importance of depression is highlighted by the rate of suicide for elderly Rhode Islanders. Whereas the rate per 100 thousand population in Rhode Island for all ages is 9.5, it is 11.5 for those 65 and over.[11]

Table 4 Five Leading Causes of Death
Rates per 100,000 Population (1986-87)
Age 65 and over

Cause	RI*	US**
Heart Disease (All)	2157	2173
Cancer	1128	1047
Cerebrovascular Disease	384	464
COPD (and allied conditions)	226	212
Diabetes	141	96+

*Verbal Communication from Dr J. Buechner, RI Dept. of Health, from 1987 Vital Statistics
**Ref. #8, p. 151
+Actually the sixth leading cause for the nation, preceded by pneumonia and influenza

Functional status measures (eg, activities of daily living, instrumental activities of daily living) are frequently utilized as proxies for quality of life measures and perhaps are more valid measures of health status in older populations than are traditional morbidity and mortality measures. In Rhode Island, disability increases significantly with age. Whereas fewer than 5% of Rhode Island residents under age 18 have any disability, 29% of those age 65-74 and 41% of those 75 and older have some disability.[13] In the 1985 Rhode Island Health Interview Survey, 19.3% of those 65 and older reported that they were unable to perform their major activity.[4] This is nearly double the national figure of roughly 10%.[12] Thus, almost 30,000 elderly Rhode Islanders are unable to perform their major daily activity and almost 50,000 individuals have some limitations in daily activities.[6]

Institutionalized elderly Rhode Islanders are older, sicker, and more disabled than are community-dwelling elders. A survey of a stratified random sample 25% of all nursing home residents in Rhode Island conducted in 1985 illustrates (Table 6) that Rhode Island nursing

Table 5 Prevalence of 5 Selected Conditions
for persons 65 and older per 1,000 population,
RI and US

	RI*	US**
Arthritis	374.4	464.7
Hypertension	366.6	378.6
Heart Conditions (all)	204.3	277.0
Impaired Vision	110.2	136.6
Diabetes	94.6	83.5

*1985 Rhode Island Health Interview Survey
**National Center for Health Statistics data in Soldo and Manton (Ref. #3)

Table 6 Characteristics of Nursing Home Residents in RI and the US 1985

Characteristic	RI*	US**
Age 65-74	14.8	16.1
Age 75-84	35.6	38.6
Age 85+	49.3	45.3
Functional Status (All Ages)		
% Independent in Dressing	31.7	24.6
% Independent in Toileting	46.4	39.1
% Independent in Mobility	30.5	29.3

*Unpublished Data, Stratified Random Sample of Nursing Home Residents in RI, 1985, Brown University Gerontology Center.
**National Nursing Home Survey: 1985 Survey for the United States (Ref. #16).

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home residents are more heavily skewed towards the oldest old, those 85 years and over.[15,16] However, the functional status of nursing home residents in Rhode Island as depicted in Table 6 is comparable to, or slightly better than, the nation as a whole. Nursing home residents in Rhode Island are able to toilet, dress, and ambulate without assistance slightly more often than the national average.

Health Care Utilization/ Expenditures

The large elderly population in Rhode Island, with its high prevalence of chronic conditions and functional limitations, consumes a large segment of the state's health care resources.

Eighty-eight percent of older Rhode Islanders saw a physician in the year prior to the 1985 health interview survey and 93% were able to identify a usual source of care.[4] The average elderly Rhode Islander saw a physician 4.5 times that year and reported telephone contact with a physician on average 0.4 times.[4] In 1985 18.1% of older women and 15.65% of older men in Rhode Island were hospitalized one or more times.

In the period between 1966 and 1987 the number of Medicare enrollees increased from 98,000 to 147,000.[18] Of all Part A enrollees in 1987, 98.6% were enrolled in Part A and B. The total Medicare expenditures and expenditures per enrollee in Rhode Island and the United States are presented in Table 7 for selected years between 1966 and 1987.[18,19] Total expenditures have increased more than sixtyfold in Rhode Island from $5 million in 1967 to over $300 million in 1987. Expenditures per enrollee in Rhode Island have increased from $400 in 1970 to over $2,000 in 1987. As illustrated in Table, 7, these rates of increase are comparable to national data.

It has been estimated that there will be a need for an additional 3,700 nursing beds and that the combined additional costs... will approach $2 billion.

If current utilization rates persist as the elderly population in Rhode Island grows over the next 40 years, the need for physician services, nursing home beds, and hospital beds dedicated to the care of the elderly will all increase dramatically. It has been estimated that by the year 2030 an additional 180 full-time equivalent physicians will be required to meet the increased needs of the

Table 7 Total Medicare Expenditures and Expenditures per Enrollee: RI and US

	Total Expenditures Medicare Part A & B		Expenditures per Person ≥ 65 yrs. (Dollars)	
Year	RI	US	RI	US
1967	$ 5.0 million	$ 4.7 million		$243
1970	41.6 million	7.5 million	$400	366
1975	91.3 million	16.3 million		653
1980	174 million	36.8 million	1370	1292
1985	290 million	72.3 million		2325
1986	319 million	77.7 million		2452
1987	306 million	82.0 million	2110	2540

[1]Source: RI BlueCross, Ref. #18
[2]Source: Office of Medicare Cost Estimates, Ref. #19

elderly.[1] It has also been estimated that there will be a need for an additional 3,700 nursing home beds and that the combined additional costs for the elderly population in Rhode Island (in 1980 dollars) for physician, hospital, and nursing home services will approach $2 billion.

The distribution of physicians in Rhode Island by primary specialty, by age, and by geographic location was recently reviewed.[13] In 1980 almost 42% of the physician population was over the age of 50, and only 25% of physicians practiced adult primary care medicine. By 1984 those in family practice, general internal medicine, and general practice had declined from 25% to 21%. Disturbingly, during the time between 1980 and 1984 Central Falls and Pawtucket, the two communities with the highest percentage of older persons, showed only a 2% increase in the number of practicing physicians, while the state as a whole had almost a 13% increase. The large number of older physicians, the recent decrease in primary care physicians, and the geographic distribution of physician growth in relation to the geographic distribution of older individuals in Rhode Island, all have troubling implications for the future of medical care in the state.

Summary

There is a large and growing elderly population in Rhode Island and that population is getting older. Rhode Island's elders are maldistributed geographically and represent a larger proportion of the population than nationally. Most have significant chronic conditions and many have major limitations in functional abilities. Relatively few reside in long-term care facilities and generally, the community-dwelling population rates their health favorably. The elderly in Rhode Island make more physician visits than any other segment of the population and account for a disproportionate number of hospital and nursing home days. The number of primary care physicians practicing adult medicine in Rhode Island has diminished and if the trends of graduating medical students continue, further decreases are to be expected. The costs of health care for the elderly in Rhode Island have skyrocketed over the last 20 years, and are projected to continue to increase dramatically over the next 40-50 years in part as a result in the growth of the state's elderly population. These cost increases will be magnified if health care costs in general continue to outpace other segments of our economy.

If Rhode Island is to adequately meet the health care needs of older Rhode Islanders over the next 40-50 years, major changes must occur. Initiatives to prevent or forestall the onset of chronic illnesses and resultant functional limitations are likely to improve the quality of life of older Rhode Islanders as well as positively influence the costs of health care for this segment of our state's population. This is true not only for those baby boomers who will move into old age in the next 30-50 years, but also for the current older cohort in Rhode Island. A nihilistic attitude towards preventive health care for elderly Rhode Islanders would have significant negative implications for the future. The trend away from primary medical care specialties and towards subspecialty practice must be overcome. Perhaps the Resource Based Relative Value Scale which will be implemented by the Health Care Financing Administration starting in 1992 will have some impact on this trend. It is also possible that the decline in traditional solo practices and a corresponding increase in the number of physician partnerships and employed physicians will favorably effect the imbalance in the specialty choices of physicians practicing in Rhode Island. Nonetheless, innovative approaches to bolstering the number of primary care practitioners in the state are sorely needed.

Part A Medicare expenditures have been stabilized in the state of Rhode Island undoubtedly as a result of prospective payment for acute hospital care. Perhaps the Resource Based Relative Value Scale and other recommendations of the Physician Payment Review Commission will have a similar effect on Part B Medicare expenditures. The costs of long-term care in Rhode Island are rising and will continue to rise in the future. As much of these costs are primarily out of pocket costs for older Rhode Islanders, it is essential that mechanisms to cover the costs as well as high quality alternatives to traditional nursing home care be developed.

In the next 30-50 years all physicians practicing medicine in the state of Rhode Island will be tremendously influenced by the health care needs of our growing elderly population. This includes even the pediatricians who will be caring for the children of young parents while those young parents are supporting their baby boom parents. It is in the best interest of all physicians in the state to develop an accurate understanding of the characteristics of our elderly population and to facilitate the development of

initiatives to address their needs.

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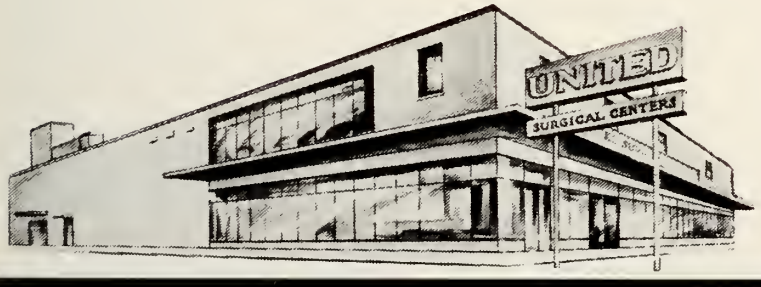

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Common Mental Health Problems in Geriatric Practice
Part I: Dementia, Depression, Anxiety, and Prescription Drug Toxicity

Barry S. Fogel, MD
Marsha D. Fretwell, MD

Both patients and primary care physicians view mental symptoms as natural, though perhaps excessive, reactions to stressful life circumstances, and feel uncomfortable labeling them as "mental illness."

Mental symptoms, such as depression and anxiety, occur frequently in later life, and diagnosable mental disorders are not uncommon. These symptoms and disorders often go untreated, even when they cause significant disability. Older persons seldom initiate consultation with psychiatrists and psychologists; they receive most of whatever mental health treatment they do get from their primary care physicians. A recent estimate suggests that 37% of diagnosable mental disorders in the elderly are not treated at all.[1] In a survey of residents of elderly housing in Rhode Island, one of us (BF) found that less than one-fifth of the 27% of residents who complained of depression were receiving any kind of treatment.

Discussion of the mental symptoms and disorders of the elderly is made more difficult by psychiatric diagnostic schemes that physicians often find imposing, and patients often find stigmatizing. Both patients and primary care physicians usually view mental symptoms as natural, though perhaps excessive, reactions to stressful life circumstances, and feel uncomfortable labeling them as "mental illness".

The literature of geriatric primary care strongly urges generalist physicians to recognize and treat depression.[2,3,4] In addition to these admonitions, the literature also encourages attention to other mental health issues, including minimizing the use of benzodiazepines, identifying and addressing alcohol abuse, avoiding the unnecessary use of major tranquilizers, minimizing the use of psychotoxic medica-

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ABBREVIATIONS USED:
ADR: adverse drug reaction
CME: continuing medical education
CNS: central nervous system
CT: computerized tomography
EEG: electroencephalography
MRI: magnetic resonance imaging
OTC: over the counter (medications)
TSH: thyroid stimulating hormone

tions in the treatment of medical problems, and offering social support at times of grief or life stress.[5,6] Further advice concerns the appropriate workup of dementia presenting in primary care practice, although experts differ on just how much of a workup is necessary.[7,8]

... many Rhode Islanders have difficulty getting an accurate and clear diagnosis for family members suspected of having Alzheimer's disease.

Despite an increase in literature on recognition and treatment of mental health problems in the elderly by primary care providers, there is substantial evidence that suboptimal management of mental health issues is frequent in Rhode Island. Recent hearings and meetings held by the Governor's Commission on Alzheimer's Disease and Dementia suggest that many Rhode Islanders have difficulty getting an accurate and clear diagnosis for family members suspected of having Alzheimer's Disease. And, in our consulting practices as a geriatric psychiatrist and a medical geriatrician, we frequently encounter untreated depression in patients who have received otherwise excellent medical care.

In an effort to understand the discrepancy between the ideal and the reality of geriatric mental health care, we undertook in the Fall of 1989 a series of meetings with primary care physicians to discuss common mental health problems of the elderly. The meetings took place for an hour every other week over a six-month period. Each was attended by between 2-6 primary care physicians. The primary care physicians responded to our challenge to discuss the practical impediments to ideal care for a range of common mental health problems. This article will summarize their ideas, and our responses to them.

The participants in the project were Drs Bruno Borenstein, Chad Boult, William Creighton, Paul McKenney, Daniel Shreve, and Mark Traines. The project was generously supported by a grant from the Rhode Island Council of Community Mental Health Centers.

The first part will focus on topics that are widely discussed in both the professional and the lay literature, and therefore show the difficulty of realizing ideals of care even when general principles are well known. Part II will address equally common problems that may be less widely and consistently reviewed and taught in CME presentations. It will conclude with general recommendations for improving primary care interventions for common geriatric mental health problems. Specific issues discussed in this article are: 1) evaluation of dementia; 2) depression; 3) bereavement; 4) anxiety; 5) psychotoxicity of prescription drugs; and 6) problems in discontinuing inappropriate psychotropic drugs.

1. Evaluation of dementia

The primary care physicians identified two problems in dementia evaluation: a) demands from families to do more of an evaluation than physicians felt was clinically appropriate; and b) non-specificity of laboratory findings, such as cortical atrophy on CT scan, subcortical white matter lesions on MRI, and diffuse slowing in EEG.

In a typical case, a family would push for laboratory tests that would turn out to show non-specific findings compatible with the diagnosis of Alzheimer's disease but not diagnostic of it. Despite the expense and inconvenience of the tests, diagnostic questions would still remain open.

Comment: The usual causes of dementia encountered in primary care are Alzheimer's disease, vascular dementia, and combinations of the two.[9] Completely reversible dementias, such as dementia solely due to subdural hematoma or normal pressure hydrocephalus, are rare in primary care. The most common remediable problems encountered in the primary care dementia workup are *prescription drug toxicity, depression, hypothyroidism, vitamin B12 deficiency,* and *systemic illnesses* such as congestive heart failure that may cause or aggravate cognitive dysfunction.[10,11] The usual result of treating these disorders is improvement, but not total resolution, of the dementia. This is probably because those elderly people most vulnerable to dementia symptoms from toxic-metabolic problems are those with some degree or underlying Alzheimer's disease or cerebrovascular disease.

The diagnostic workup of dementia always requires a comprehensive clinical and laboratory re-evaluation of the patient for systemic illness, B12, folate and TSH levels, and a meticulous drug history. Brain imaging is usually needed when dementia presents for the first time, although its omission sometimes can be justified in cases of long-standing dementia with an insidiously progressive pattern typical of Alzheimer's disease. More intensive testing,

such as lumbar puncture, EEG, or MRI (if a CT had already been done) generally would be needed only if there were special features of the dementia, such as an unusually early onset, or associated neurologic abnormalities, such as involuntary movements, seizures, headaches, focal weakness, etc.[12]

Families pressing for "everything to be done" should be educated regarding the likely outcomes of investigations in patients with typical and long-standing symptoms of dementia. Also, the possibility should be considered that their behavior may be a reflection of their anxiety over non-medical issues such as planning for long-term care and the distribution of family obligations. Referring the family for education and support from the Alzheimer's Disease and Related Disorders Association may help bring these issues to light, as well as help to resolve them. Once the issues are identified, some families may be receptive to appropriate counseling or family therapy. However, if families persist in requesting more extensive testing following educational and supportive efforts, their wishes generally should be honored, unless the patient actively and competently objects. A second opinion from a neurologist often is useful at this point, after basic testing has been done, but before more elaborate testing is pursued. Such consultation in itself allays family anxieties, and may also lead to a more efficient workup. By contrast, neurologic consultation undertaken *prior* to a basic primary care workup may be less effective, leading to textbook suggestions for evaluation, and offering less comment on specific diagnostic issues such as the relevance of involuntary movements or the meaning of an abnormal CT scan.

Regarding the interpretation of nonspecific findings on CT, MRI, or EEG, it is useful to consider findings in terms of *compatibility with a diagnostic hypothesis.* A normal EGG may be thought to give no diagnostic information, but if it were found in a patient with severe dementia, it would be strong evidence against Alzheimer's disease, since EEG changes roughly parallel the extent of impairment in that disorder.[13,14] White matter changes on MRI would support a diagnosis of vascular dementia in a demented patient with spastic tone and abnormal reflexes, but would have less definite significance in a patient with a normal basic neurologic examination.[15] Mild cortical atrophy is quite non-specific, but its presence bilaterally argues even more strongly against a tumor or subdural hematoma than a completely normal CT scan without any visible sulci.

2. Depression

The primary care physicians were generally aware of the profound effect that depression may have on amplifying physical symptoms or leading to excess physical disability. However, they found that not all patients thought to have excess disability from depression could be successfully treated. They identified two issues: a) reluctance of patients to accept a diagnosis of depression; and b) difficulties with patients tolerating medications, leading to non-compliance and premature abandonment of treatment. Difficulties with side effects and compliance occurred despite the physicians' following contemporary advice to start with low doses of antidepressants and raise them slowly, and to avoid highly sedating and anticholingergic drugs such as amitriptyline.[16]

Comment: Particularly when patients also have mild dementia or multiple medical problems, side effects from antidepressants are the rule, as is the need for dosage adjustments or switching from one agent to another. Patients and families must be prepared for the trial-and-error nature of antidepressant drug therapy, and told that while side effects and dosage adjustments are likely, so is eventual therapeutic success. Frequent office visits or telephone calls should be scheduled to encourage reporting of drug effects, both positive and negative, and to permit reinforcement of the treatment plan. Initial dosage should be low, often lower than the initial dose found in the *Physician's Desk Reference.* For example, tricyclic antidepressants usually should be started at no more than 10 mg per day, until tolerance to the drug is established.

Patients and families must be prepared for the trial-and-error nature of antidepressant drug therapy . . .

A common reason for side effects in drug intolerance is the combination of antidepressants with medical drugs already in place that might have additive anticholinergic, hypotensive, or CNS depressant effects. An initial review of potentially psychotoxic drugs is part of the evaluation of depression; a second drug review may be needed to best evaluate and manage side effects that emerge with antidepressant treatment. The primary care physician, who knows the

indications and necessity of the patient's medical drugs, is in the best position to do this. Often helpful maneuvers include the discontinuation of other drugs with anticholinergic effects when a tricyclic is started, elimination of benzodiazepines if a tricyclic adequately improves nighttime sleep, and reduction or discontinuation of antihypertensive drugs (especially diuretics) if the antidepressant lowers blood pressure.

Based on his or her own knowledge of psychopharmacology, the primary care physician should establish a threshold for referral to a specialist if the depression does not improve within a defined period, or if unfamiliar side effects develop. It is sometimes helpful to discuss this threshold for referral with the patient or family.

Emphasizing the non-trivial nature of antidepressant drug therapy with the patient and family requires that they understand and accept that there is an illness that needs treatment with antidepressants. This requires more effort at the outset, but is more likely to promote compliance than leaving the patient with a perception that a drug is being prescribed merely for symptomatic treatment of insomnia or loss of appetite.

In discussing the diagnosis, some patients may regard the diagnosis of depression as a criticism, implying that they are either crazy or weak. Alternative explanations, such as "chronic stress reaction," "complications of grief," or "a combination of symptoms that usually responds to antidepressant drug therapy," may help circumvent this resistance. The key idea is to emphasize that depression may have a physical rather than a psychological cause, and that its symptoms may be predominantly physical rather than mental.[17]

3. Bereavement

The primary care providers were familiar with the distinction between normal grief and bereavement depression; the latter distinguished either by greater severity of symptoms, the occurrence of severe psychotic or suicidal features, failure to improve over several months, lack of mood reactivity, and/or significant functional impairment.[18] While their criteria differed for when to prescribe psychotherapy or antidepressant drug treatment for the bereavement depression, all agreed that significant impairment in everyday function would be a reason to consider some form of specific treatment. The problem they encountered was patients' resistance to their suggestions of psychotherapeutic or antidepressant drug treatment. Suggestions were often met by patients' insistence that their symptoms and functional decline were inevitable given the severe loss they had suffered, and doubt that treatment would be of any help.

Comment: Better-functioning patients can be educated as to the difference between normal grief and depressive illness precipitated by grief. The approach described above to discussing the diagnosis of depression as a "chronic stress reaction" or as a primarily physical disorder might be employed. Such patients may also need to be reassured that treating a depression will not interfere with their bereavement, but might actually help by providing them with more energy to resolve their grief and begin a new life.

For lower-functioning patients disabled by bereavement depression, caretaking family members may need to be involved. If they can be educated regarding the distinction between normal bereavement and bereavement depression, and the efficacy of specific treatment, they might be able to eventually persuade the affected family member to accept treatment.

Regarding the choice of antidepressant drugs vs psychotherapy for bereavement depression, the path of least resistance should be taken. If the patient feels more comfortable with the idea of "counseling" than with the idea of taking medications, a referral should be made for psychotherapy, with the understanding that the psychotherapist will raise the issue of medication if symptoms do not improve with psychotherapy. On the other hand, if the patient prefers drug therapy for vegetative symptoms such as anorexia and insomnia, the issue of psychotherapy can be deferred until it is seen how much the patient will improve with time and drug treatment alone. Often, patients are able to better mobilize their own social supports if their vegetative symptoms of depression are treated.

4. Anxiety

The primary care physicians identified two problems: a) some patients' long-term and unshakeable attachment to benzodiazepines; and b) anxious patients' fears of medications and their amplification of side effects. The primary care physicians were aware of the literature associating benzodiazepines with an increased risk of falls,[19,20] and their tendency to aggravate memory problems.[21,22] Even when these issues were explained to patients, however, many

patients were reluctant to decrease their benzodiazepine dosage. Difficulties were encountered frequently with patients on short-acting drugs such as alprazolam (Xanax).

Comment: In approaching the patient on long-term benzodiazepine treatment, the question must first be raised as to whether the patient shows evidence of impairment attributable to the benzodiazepine, such as unsteady gait, confusion, or impaired memory. If a patient on benzodiazepines showed no such evidence, and could, for example, stand on one foot for 10 seconds, do a perfect heel-to-toe walk, and remember complex material without a flaw, it is unlikely that that patient would be at increased risk of adverse consequences from continued benzodiazepine therapy. If, on the other hand, specific evidence of impairment in memory or gait were found and could be demonstrated to the patient and family, this might increase their motivation for removing the benzodiazepine more than theoretical arguments about possible risks.

If a benzodiazepine is to be removed, it should be done *extremely* slowly. For example, alprazolam dosage might be tapered at the rate of 0.25 mg every two weeks, or diazepam might be tapered by 2 mg every two weeks. Rebound anxiety during the tapering of benzodiazepines is especially problematic with shorter-acting drugs such as alprazolam (Xanax) and lorazepam (Ativan).[23] Therefore, if tapering a short-acting benzodiazepine is poorly tolerated, the patient could be switched to an equivalent dose of a longer-acting benzodiazepine such as diazepam or clonazepam, and the longer-acting drug could be slowly tapered with less intensive rebound anxiety.[24] If complete discontinuation of the benzodiazepine were difficult, it would be acceptable to taper it to a lower dose at which side effects on gait and cognition were not present.

If a benzodiazepine is to be removed, it should be done extremely slowly.

Many, if not most, patients on long-term benzodiazepine therapy have anxiety disorders that would be painful and disabling if not treated. These patients usually require other antianxiety medication if they do not take benzodiazepines. Some such patients can be managed with antidepressant drugs, while others respond well to buspirone.[24] Specialty consultation may be helpful both to establish the psychiatric diagnosis and to recommend the appropriate alternative therapy.

Regarding anxious patients' difficulty tolerating any new drug because of amplification of side effects, two tactics might be helpful. The first is to give a low-dose benzodiazepine for a few weeks while starting a non-benzodiazepine drug, then tapering the benzodiazepine once the new drug is in place. The second is to schedule frequent telephone calls or office visits to allow the patient to "check in" during initiation of a new drug. Such calls reassure the patient that the physician is committed to the therapy yet will respond quickly if side effects do develop. They also minimize the patient's need to amplify symptoms to get the physician's attention.

5. Psychotoxicity of prescription drugs

The primary care physicians were aware of the high prevalence of adverse drug reactions (ADRs) affecting the central nervous system, and how these may occur in elderly patients at relatively low doses of medications that yield putatively "therapeutic" drug levels. Their main practical problem was with coordinating drug therapy when many of their patients received drugs from multiple specialists, and in addition took over-the-counter (OTC) medications.

Comment: Keeping medication lists under control begins with educating the patient and family about the high prevalence of adverse drug reactions and drug interactions, and asking them to keep the primary care physician informed of any changes in medication, or new medications prescribed by other doctors between office visits. In some cases, it is useful to contact the patient's pharmacist, and ask the pharmacy to provide complete drug profiles from time to time.

Once a problem with drug interactions or psychotoxicity is recognized, there are sometimes difficulties in getting specialists to change potentially psychotoxic medications. These are best managed by telephone calls to the prescribing specialists, explaining the reason why psychotoxicity or drug interaction is suspected. It is often helpful for the primary care physician to have a less psychotoxic medication in mind to suggest as an alternative. For example, sucralfate can be suggested as a substitute for cimetidine.

6. Problems in discontinuing inappropriate psychotropic drugs

The primary care physicians were aware that psychotropic drugs, especially tranquilizers, are often inappropriately

prescribed, leading to their encountering patients already on long-term tranquilizer therapy for uncertain indications. For example, it is not uncommon to find patients who have been on Triavil (amitriptyline-perphenazine) for years, despite the risks of tardive dyskinesia, Parkinsonism, and anticholinergic side effects associated with this combination. Primary care physicians often would like to stop potentially unnecessary drugs, but face two problems: a) the true psychiatric diagnosis and indications for drug therapy are obscure; and b) the patient may resist discontinuation of the drug because past attempts have caused uncomfortable symptoms.

Comment: The first problem, of obscure diagnosis, is best addressed by a one-time diagnostic psychiatric consultation. Patients usually are open to this if the reason is explained. Their out-of-pocket cost is low, since psychiatric evaluation, as opposed to treatment, is 80% covered by Medicare. The consulting psychiatrist has both the time and the specialized skills necessary to attempt a retrospective psychiatric diagnosis.

Keeping medication lists under control begins with educating the patient and family about the high prevalence of adverse drug reactions and drug interactions . . .

Symptoms upon withdrawal of long-term psychotropic drug therapy are common even when the drugs were inappropriately prescribed in the first place. The wide range of psychotropic drug withdrawal reactions was well-reviewed recently by Dilsaver.[25] Insomnia and anxiety are particularly common withdrawal symptoms when tranquilizers are discontinued. To minimize withdrawal symptoms, drugs must be tapered very slowly, with each successive reduction in dosage contingent upon the subsiding of symptoms from previous dosage reductions.

Patients and families must be clearly informed of the risks of continued inappropriate drug therapy to motivate them to tolerate the inconvenience and discomfort of drug withdrawal.

Conclusion

The clinical problems discussed here illustrate the practical difficulties in implementing published ideals of care for well-known mental health problems of geriatric practice.

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Common Mental Health Problems in Geriatric Practice
Part II: Insomnia, Chronic Pain, Troubled Families, and Other Dilemmas

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Initial insomnia is frequently due to poor sleep hygiene alone, with insufficient exercise, use of caffeine, and daytime napping being common problems.

The prior article illustrated how the management of even well-known mental health problems such as dementia and depression involves difficulties that require perseverance and tact from the primary care physician. This article will address problems that may not be as systematically taught to primary care providers. These include: 1) mental complications of hospitalization and surgery; 2) pain control; 3) insomnia and other sleep disorders; 4) alcohol and drug abuse; 5) dealing with caretaking families under stress; and 6) gaining access to the specialty mental health system.

As in the prior article, the authors report the primary care physicians' observations on difficulties in providing optimal care, and comment upon them. The article concludes with summary suggestions for improving primary care practice regarding common geriatric mental health problems.

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1. Problems related to hospitalization and surgery

The primary care physicians were aware that the most common psychiatric complications of hospitalization and surgery are delirium and depression, and they knew basic principles of prevention, namely: 1) detailed advance explanation of elective surgery and hospitalization; 2) minimizing the use of psychotoxic drugs; 3) adequate pain control; 4) frequent visits by the family and the primary care physician; 5) adopting a pace of tests and procedures appropriate to the patient age and degree of frailty; and 6) careful discharge planning and close follow-up in the days following discharge.[1] The major problem they encountered was in implementing this strategy; this was due to their losing control of the case once the patient was in the hospital. Surgeons or house staff unfamiliar with a specific patient or with geriatric issues might overuse psychotoxic medications or undertreat pain. Or, administrative pressures might lead to an excessively rapid pace of tests and procedures, or an excessively rapid and improperly-prepared discharge.

ABBREVIATIONS USED:
CMHC: community mental health center
CNS: central nervous system
NSAID: non-steroidal anti-inflammatory drug
PRN: pro re nata (ie, as circumstances dictate)

Comment: The primary physician must face these problems by continually reasserting his or her relationship to the patient and calling attention to the patient's needs both in the medical record and in discussions with house staff and surgeons. In some cases, this can be accomplished by a typewritten list of suggestions placed in the chart, or by a letter to the surgeon prior to the date of elective surgery. In addition, the primary care physician might arrange with the surgeon or house staff to take primary responsibility for writing all orders for analgesics, hypnotics, and other CNS drugs.

Administrative pressures to accelerate the pace of treatment, or discharge patients more rapidly, are best met by clear and legible notes in the chart emphasizing the relevant clinical considerations. Meticulous documentation of needs to modify therapy on account of patients' special vulnerabilities is the best approach to dealing with utilization reviewers and Professional Standards Review Organizations.

2. Pain control

The two most common pain control problems encountered by the primary care physicians were: a) *overuse* of narcotic analgesics for chronic pain; and b) *underuse* of narcotic analgesics for *acute* pain. The primary care physicians often encountered patients using acetaminophen with codeine, propoxyphene, and other mild narcotics prescribed by other physicians. They understood that the treatment of acute pain with narcotic analgesics does not cause addition, but they frequently encountered nurses, surgeons, and other caretakers who were uncomfortable with liberal analgesic practice.

Comment: Successful drug treatment of chronic pain without narcotics rests on: 1) use of adequate doses of nonsteroidal anti-inflammatory drugs (NSAIDs) (Acetaminophen, given on a regular (not PRN) schedule, is the best-tolerated of these and usually should be tried first.); 2) the use of antidepressants as analgesic adjuncts; and 3) the use of specific therapies, such as anticonvulsant drugs or capsaicin cream, for neuropathic pain. The details are beyond the scope of this article, but have been reviewed elsewhere.[2] An example, however, of an often helpful non-narcotic combination for chronic arthritic pain is fluoxetine (Prozac) 20 mg per day plus piroxicam (Feldene) 10-20 mg per day.

Regarding the adequacy of narcotic therapy for acute pain, the basic principle to be communicated to caretaking staff is that patients require less narcotics if their pain is never allowed to become unbearable. While patient-controlled analgesia is the state of the art, both patients with acute or postoperative pain can be managed with narcotics given on a "reverse PRN" schedule. Under this schedule, medication is given to the patient every three to four hours unless the patient is asleep or indicates a preference that the medication be omitted, delayed, or given in a smaller dose.[3]

In treating acute pain with narcotics it is advisable to avoid those narcotics that are especially associated with psychiatric side effects. Among these, meperidine (Demerol) and pentazocine (Talwin) are the most common.[3] Even in patients who have undergone recent surgical repair of hip fracture, acetaminophen given on a regular schedule around the clock may be surprisingly helpful for the pain, while almost completely free of CNS side effects, and unlikely to cause constipation. Strikingly, many elderly patients are treated with psychotoxic narcotics before this simple strategy is even tried. Even when narcotics must be given, they tend to work better if they are added to a base of acetaminophen or another non-narcotic analgesic.

3. Insomnia and other sleep disorders

The primary care physicians were aware that normal elderly people sleep both fewer hours and less deeply than younger people, and that the chronic use of sleeping pills rarely is appropriate.[4] They also knew that many patients who complain of insomnia have poor sleep hygiene, and that some have primary sleep disorders such as sleep apnea or nocturnal myoclonus.[5] They identified the following practical problems in assessing and treating sleep disorders: a) how to treat the patient with persistent sleep complaints who will *not* change poor sleep habits and continues to request sleeping pills; b) how to withdraw patients from inappropriate sleeping pills; and c) how to decide which patient to refer for formal sleep disorder evaluation.

Comment: Regarding insomniacs with poor sleep hygiene, a distinction should be made between patients with early morning awakening and those with difficulty falling asleep. The sleep problems of patients with early morning awakening are less likely to be due to poor sleep hygiene alone. Such patients

must first be assessed for medical problems such as congestive heart failure that awakens them with a specific symptom (eg, dyspnea).[5] Then, a useful strategy is elimination of alcohol, and treatment with a low dose of sedating antidepressant at bedtime, such as trazodone 25-50 mg or doxepin 10 mg, with the dose to be adjusted as needed and tolerated.

Patients who come to the physician on chronic hypnotic therapy should be handled just as other patients receiving potentially inappropriate psychotropic drug therapy.

Initial insomnia is frequently due to poor sleep hygiene alone, with insufficient exercise, use of caffeine, and daytime napping being common problems. Principles of sleep hygiene should be reviewed with these patients and their families, and an effort should be made to get the patient to at least try better sleep hygiene for a few weeks.[5] The insomniac patient's drug list should be reviewed for potentially stimulating agents, such as decongestants and theophylline, and the patient should be carefully screened for depression or anxiety needing treatment. If all of these measures fail, referral for a one-time psychiatric evaluation is justifiable before committing the patient to regular hypnotic therapy that is virtually certain to become hypnotic dependence.

Patients who come to the physician on chronic hypnotic therapy should be handled just as other patients receiving potentially inappropriate psychotropic drug therapy. General principles for treating such patients are discussed above.

Referral to a sleep specialist should be considered for: a) excessive daytime sleepiness or sleep attacks; b) assessment of sleep disturbance associated with obesity and hypertension; c) unusual noises, apneic spells, or violent movements during sleep; d) insomnia that is intractable despite good sleep hygiene and not explained by an obvious primary psychiatric diagnosis. In this connection, sleep apnea can be regarded as one of the potential "home run" diagnoses a physician can make. Sufferers from this relatively common disorder may have a constellation of symptoms including hypertension, obesity, headaches, fatigue, cognitive impairment, and depression, yet may improve completely with a simple, specific treatment such as continuous positive airway pressure or surgical relief of upper airway obstruction. The diagnosis of sleep apnea is usually delayed for many years following the onset of symptoms, because physicians do not consider it.[6]

4. Alcohol and drug abuse

Specific problems identified by the primary care physicians in treating alcohol and drug abuse in the elderly were: a) where to refer elderly people with severe alcohol and drug problems for treatment; and b) how to confront elderly people with lifelong heavy drinking that becomes problematic only in old age, and who therefore do not see themselves as problem drinkers.

Comment: Most specialty alcohol and drug facilities focus on younger populations, and many older alcoholics and drug addicts do not feel comfortable in a largely youthful treatment setting.[7] For example, an elderly woman who abuses prescription drugs may feel out of place in a population of young males addicted to cocaine and heroin. As specific treatment programs continually change, a reasonable approach to referral is to send the patient to a geriatric psychiatrist or to a psychiatrist with a declared interest in substance abuse treatment. These individuals are likely to have the knowledge to match the patient with a suitable treatment setting.

... the patient can accept the medical necessity to discontinue drinking as long as he need not accept the stigma of being labeled an alcoholic or problem drinker.

When confronting the heavy drinker whose drinking has become problematic only in old age, a helpful strategy is to focus on a specific health consequence of drinking, such as memory loss or anemia, that might be of concern to the patient. It can be suggested that drinking must be discontinued as part of the treatment of this health problem. In many cases, the patient can accept the medical necessity to discontinue drinking as long as he need not accept the stigma of being labeled an alcoholic or problem drinker. If the patient continues to drink despite strongly stated medical advice and objective evidence that there is danger to his health, the stage is set for a full confrontation, with family involvement, much as would be done with a younger alcoholic.

5. Dealing with caretaking families under stress

While the primary care physicians all recognized the crucial

importance of educating and working cooperatively with family caretakers, all have had experiences of feeling that dealing with the family was a burden, or even that the family's involvement contributed to the patient's problem.

Comment: The burden of dealing with families can be lightened by the following simple principles: 1) Allow sufficient time to talk with involved family caretakers, and bill them for the time. Some, but not all, of such family contacts are reimbursable by Medicare. Even when they are not, many families would prefer to pay for the physician's time, and feel that adequate attention has been paid to their questions and concerns. 2) Don't forget who the patient is, and put the patient's interest first. 3) Recognize overt depressive illness in family caretakers, point it out; and assist the involved caretaker in obtaining treatment. 4) Recognize that there are "impossible" families with long histories of anger, conflict, resentment, and even abuse. Don't try to make them happy. Consider referring them to a professional family therapist, and focus on the medical concerns of the patient.

6. Gaining access to the specialty mental health system

The primary care physicians identified two problems: a) the public sector mental health system, comprising the community mental health centers (CMHC) and the state hospitals, is unfamiliar to them and to their patients. Dealing with it seems time consuming and difficult, and patients referred often feel stigmatized; b) many private psychiatrists seem uninterested in referrals of elderly patients.

Comment: Historically, the specialty mental health system has relatively neglected the needs of the elderly. In part, this has been because funding for geriatric mental health services has been lacking.[8] For example, until 1987, Medicare allowed its beneficiaries only $500 per year for outpatient mental health services. Further, even though Medicare coverage has improved somewhat, the fees allowed by Medicare for psychiatric evaluation are below the market rate for such services, and most psychiatrists have the option of filling their practices with younger patients who pay their full fee. Thus, only a minority of specialty mental health providers are especially interested in the care of the elderly.

While there is little doubt that the total pool of specialty mental health providers for the elderly is inadequate, the irony is that those providers who do exist are not fully utilized.

Efficient referral of elderly patients requires identifying in advance those mental health specialists in one's community who are interested in work with the elderly. There are numerous psychiatrists, psychologists, and social workers in Rhode Island with an interest in elderly patients, and all of the community mental health centers have at least one individual or team with special geriatric interests. It makes sense for the primary care physician with a large geriatric practice to get personally acquainted with at least one private psychiatrist, one nonmedical psychotherapist, and one local CMHC staff person with geriatric interests. Then, when the need arises, the physician will have a specific person to call, and be familiar with what services are offered and what information will be needed to successfully make the referral.

While there is little doubt that the total pool of specialty mental health providers for the elderly is inadequate, the irony is that those providers who do exist are not fully utilized. Those primary care physicians who invest time making personal contacts with specialty care providers will make the most of the services the existing system does have to offer.

Conclusion

The knowledge base in geriatric psychiatry is rapidly growing, and new treatments offer better quality of life to many elderly people with mental disorders. However, primary care providers with large geriatric practices and good knowledge of geriatric mental health issues may nonetheless experience practical problems in translating their knowledge into excellent psychogeriatric care. Bridging the gap between the ideal of care and the realities of practice may be facilitated by the following general strategies: a) offering more education to patients and families about mental health problems; b) eliciting the mental symptoms that patients may be having in response to their physical illnesses or personal losses; c) making psychiatric diagnoses carefully and pursuing their treatment with the same persistence as applied to other medical diagnoses; d) developing a referral network that includes a compatible psychiatrist, a nonmedical psychotherapist, and a contact at the local community mental health center; e) making

greater use of specialist consultation, particularly from psychiatrists and behaviorally-oriented neurologists; f) explaining the relevance of mental health problems to patients in terms of their impact on physical and cognitive function; g) coordinating care plans with medical and surgical specialists who may be less aware of mental health problems than the primary care physician; h) assuming a leadership role in the general management of frail elderly patients, particularly during hospitalizations in which such patients are at high risk for mental deterioration; i) basing psychotropic drug prescriptions for the elderly on definite treatment plans that include close and scheduled follow-up; and j) considering discontinuation of potentially psychotoxic medications as a therapeutic option when encountering an abnormal mental status.

Education for primary care physicians in geriatric psychiatry should address the need for art as well as science in the approach to common mental health problems of the elderly. Relevant educational experiences might include training in communication skills, techniques of family assessment and intervention, and methods for coordinating care among multiple caretakers. Physicians with little taste for psychological intervention might benefit from "art appreciation" — knowledge of the strengths, limitations, and subtleties of geriatric psychiatry, as essential for making the most timely and effective referrals.

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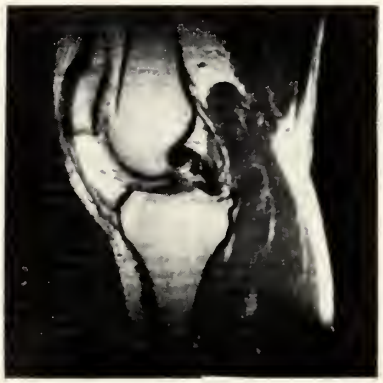
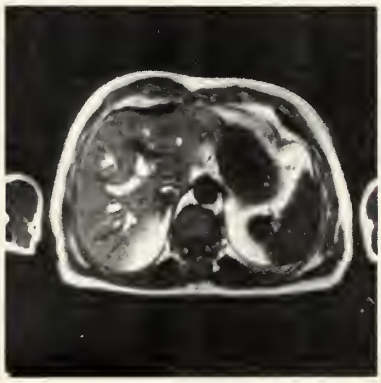

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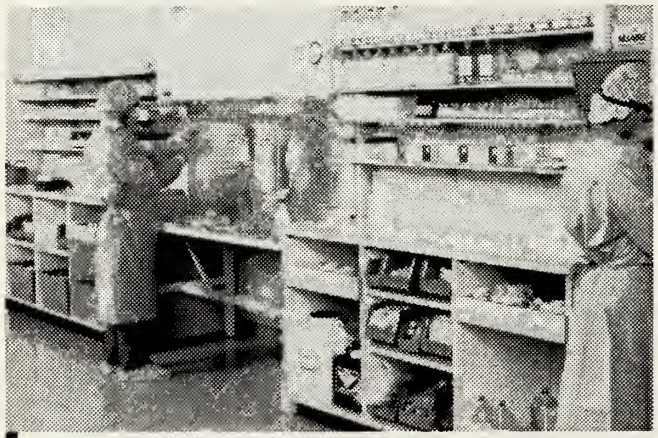

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Falls

Douglas P. Kiel, MD, MPH

Falls have become one of the leading causes of injury, disability and death among the elderly.

As the United States, and especially Rhode Island, ages, many problems faced by the elderly become more apparent. Falls have become one of the leading causes of injury, disability, and death among the elderly.[1] Anyone who has worked with older persons is familiar with their fear of falling and the serious consequences resulting from a fall. Nothing could be more undignified than falling to the ground and sustaining a bruise or laceration, knocking over pieces of furniture, or even breaking a hip and spending weeks in a hospital or a nursing home learning to walk again. Fear of falls may cause older people to restrict their activity, become immobile and depressed, and even lose their will to live. Family members often feel guilty about not having taken precautions necessary to prevent a fall.

Despite the seriousness of the problem, few physicians consider the need to question elderly patients about their experience with falls. Falls are often viewed as part of old age itself which may explain why they are overlooked. In the past few years a great deal of information has become available regarding the reasons people fall and the consequences of a fall.

This paper will discuss the incidence and morbidity of falls, the cause of falling, and some of the ways that health care providers can contribute to the evaluation and prevention of falls among older individuals.

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Incidence and Morbidity

According to recent epidemiologic studies, approximately one-third of community-dwelling persons over the age of 75 fall each year.[2] The rate increases to 40% in those over the age of 80.[3] Falls occur even more commonly in nursing homes where the incidence has been reported to be 1,600 per 1,000 patients.[4] According to a survey of members of one senior center in Rhode Island, 17% reported a fall in the previous year. Overall, 37% of those surveyed reported a fear of falling and one-third of those who expressed this fear felt that it led to a restriction of activities.

Most falls do not result in significant injury, although among persons aged 65 years and over, falls were the leading cause of accidental death in 1987.[5] The fatality rates from falls increase with age. For persons age 65-74 the death rate from falls in 1987 was 8.5 per 100,000. For those aged 75 years and over, the death rate from falls was 56.7 per 100,000. Approximately 5% of falls result in fracture.[6] Hip fractures account for greater morbidity and health care costs than all other osteoporotic fractures combined, and result in approximately a 10 to 15% reduction in life expectancy.[7] Aside from fractures, 5-10% of falls result in serious injuries. Not to be underestimated are the serious consequences of a non-injurious fall. The psychological trauma or fear of falling may lead to a self-imposed restriction in activity and reduced participation in social activities.

Causes of Falls

Three groups of risk factors have been implicated in falling: elements intrinsic to the individual, environmental factors, and the activity in which a person is engaged at the time of the fall.

Intrinsic risk factors

Age is one of the most obvious risk factors for a fall. Women tend to fall more often than men until the age of 75 when men either fall more or as often as women.[8] Some research suggests that elderly women living alone are at significantly greater risk of falling and being injured.[8]

Chronic disease conditions such as lower limb arthritis, changes in visual acuity, foot problems, and neurologic disorders such as stroke, seizures, Parkinson's disease and dementia, can predispose to falls. Changes in gait and balance contribute to falling even in those without known disease. This has been confirmed both in studies using simple observation of individuals performing simple tasks[2,6] and in studies using sophisticated balance and gait assessment devices.[9] In one study examining sway and gait speed, persons at high risk of falling had low gait speed and a high sway path.[10]

Occasionally, acute medical illness can result in a fall. In some instances an individual compensates for several chronic conditions affecting gait and balance until an acute condition overwhelms the compensatory mechanisms. Examples include infection, transient ischemic attack, and congestive heart failure. In fact, falls may be the presenting problem for almost any acute illness in a frail elderly person.

. . . medications, capable of causing falls include long-acting benzodiazepines, tricyclic antidepressants and barbiturates.

Lower extremity muscle strength declines with age and appears to contribute significantly to the risk of falling.[11] In one recent study a person having difficulty standing up from a chair had three times the risk of multiple falls in the subsequent year.[6] Investigators have found fallers to have greater reductions in ankle dorsiflexor strength than non-fallers.[11]

Drug use is often implicated as a host factor contributing to falls in older individuals. Since drugs are metabolized differently in the aged, certain classes of drugs may produce toxic effects capable of causing a fall. Similarly, the use of multiple drugs seems to increase the frequency of falls. Examples of medications capable of causing falls include long-acting benzodiazepines such as diazepam, chlorazepam and flurazepam, tricyclic antidepressants, and barbiturates. Antihypertensive agents have been implicated as have diuretics; however, more studies are needed to separate out the effects of the drugs from the medical conditions for which the drugs are being taken.

Finally, orthostatic hypotension may contribute to the risk of falling. The prevalence of a decrease of 20 mm Hg in systolic blood pressure in community-dwelling elderly is approximately 10%.[14] The causes are multifactorial, ranging from physiologic changes in baroreceptor sensitivity with aging to disease or drug-induced changes in volume status or preload.

Environmental factors

Although environmental hazards exist in most homes, studies are conflicting as to their precise contribution to the risk of falling. Some investigators feel that environmental factors contribute to most falls despite the fact that two prospective cohort studies failed to demonstrate any risk from the environment.[2,6] Part of the problem may be the difficulty in ascertaining the precise events surrounding a fall especially the environmental contribution. Nevertheless, the environment should be viewed as adding to the risk of falls, but probably plays a lesser role than intrinsic factors as an individual becomes more frail.

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Most falls occur in the home. Environmental hazards can be found within each room of the house. The bathroom may not have non-skid mats or handles in the tub. The living room, bedroom, and dining room often lack adequate lighting. Exposed electric wires, furniture, and throw rugs represent potential hazards. In the kitchen, hard-to-reach cabinets or shelves may result in falls when an individual loses balance while reaching or using dangerous step-stools.

Activity-related risk factors

A small percentage of falls occur while a person is involved in some hazardous activity such as bicycle-riding or standing on a ladder or step-stool. However, the majority of falls occur during ordinary activities such as walking, standing, or rising from a bed or chair. The interaction of an activity-related factor, the environment, and individual risk factors may best be appreciated by considering the stairs. An individual with knee arthritis who has never fallen, when faced with poorly illuminated stairs carpeted with a distracting pattern, may fall and sustain an injury. The perceived vulnerability using stairs probably accounts for the fact that people over 65 use stairs less frequently than younger adults. Nevertheless the severity of the injuries sustained by the aged using stairs is greater.[13]

Evaluation and Prevention of Falls

The recognition of the seriousness of the problem and the multifactorial etiology of most falls should prompt the health care provider to carefully evaluate an older person's risk of falling. The goal of prevention is to minimize the risk of falling through modification of intrinsic and environmental factors without significantly compromising the mobility and activity of the individual. A systematic approach is required, as would be the case for any clinical problem.

The goal of prevention is to minimize the risk of falling through modification of intrinsic and environmental factors without significantly compromising the mobility and activity of the individual.

The assessment should begin with an appraisal of pertinent risk factors. The patient's history should include questions regarding vision, hearing, postural or other types of dizziness, neurologic symptoms such as weakness or numbness in the lower extremities, problems with the feet, other medical conditions such as arthritis or heart disease, alcohol history, and a list of medications used including over-the-counter drugs. Individuals should be queried regarding previous falls and the circumstances surrounding them. It is probably worthwhile asking about the fear of falling both in those who have fallen and in others who have not yet fallen. If a fear exists, it is important to determine if this fear has led to a restriction of usual activities.

In addition to the history, the physical examination should also focus on risk factors for falls. As mentioned previously, a fall may be the presentation of an acute illness or may partly result from a physical limitation evident on physical examination. Thus, an examination should include postural blood pressure determinations, testing of visual acuity, a thorough cardiovascular and neurologic evaluation, and examination of the feet for deformities, such as bunions, and for poorly fitting shoes.

Depending on the findings in the history and physical examination, specific interventions can be targeted to the individual patient. For example, reduced visual acuity should be corrected when possible, and the lighting in the home should be adequate so as not to compound the problem of reduced acuity. Cataract surgery with intraocular lens implantation has been shown to improve visual acuity, subjective and objective measures of patient function, and timed manual performance tests.[14] When medications are identified that have a significant potential for increasing the risk of falls, the provider should attempt to weigh the risks and benefits of the medications in the individual. This includes sedative-hypnotic drugs as well as medications that increase the risk of orthostatic hypotension in those persons with an underlying problem with postural blood pressure changes. Prescription of the lowest effective dose is a general principle that applies in all situations and especially in the case of the fall-prone patient.

Gait and balance play an important role in falls and should be assessed formally in most older patients. There are now several well described, direct observational tests that can be employed by the health provider to assess gait and balance. The first of these, the "Get Up and Go Test",[10] requires patients to stand up from a chair, walk a short distance, turn around, return, and sit down again. The test is scored on a 1 (normal) to 5 (severely abnormal) scale with "normal" meaning that the subject has no evidence of being at risk of falling during the test or at any other time and with "severely abnormal" meaning the subject appears at risk of falling during the test. Although there is some observer variation in the grading of this test, there is reasonable reliability and consistency. In addition, the score on the test is directly related to sway (the better (lower) the score, the less the sway) and indirectly related to gait speed (the better (lower) the score, the faster the gait speed). The "Get Up and Go" test has not been assessed for its ability to predict the risk of falling.

Other investigators have used simple observational tests of performance to assess the risk of falling in older individuals. For instance, Tinetti and colleagues[15] have developed a standardized assessment of balance and gait consisting of the following: arising from and sitting in a chair; side-by-side standing with eyes opened and closed; withstanding a nudge on the sternum; turning the neck; turning in place; back extension, standing on one leg; reaching up and bending over; step length, height, symmetry and continuity; path deviation; trunk sway; walking stance; turning; and ability to walk faster. All items are scored as normal or abnormal. Mean interrater reliability is 86%. This assessment, in addition to its simplicity and ease of performance without much equipment, has also been

used in a prospective study of risk factors for falls in New Haven, Connecticut. In that study many of the balance and gait maneuvers were useful in predicting falls.[2]

Other studies have used similar direct observation of neuromuscular function and mobility as they pertain to falls. Nevitt and colleagues used a series of measurements consisting of the following: ability and time required to stand from a chair of standard height and design unaided and without using one's arms; number of times one is able to step up onto a single 23-cm step in 10 seconds; number of errors during a tandem walk along a 2-meter line that is 5-cm wide (error defined as stepping off the line, touching or grabbing the examiner or another object, or taking steps with the heel and toe visibly separated); time that one is able to stand on one leg; Romberg maneuver; number of steps and the time to walk 5 meters at a normal pace; stepping asymmetry and arrhythmicity, weaving, staggering, shuffling, and reduced arm swing; number of steps to complete a 180 degree turn; grip strength using a hand dynamometer; reaction time. Using this assessment in a prospective study of risk factors for falls, these investigators found that a person unable to stand from a chair, or taking longer than 2 seconds to do this, had three times the risk of two or more falls in the following year. Similarly, an individual with 8 or more errors on the tandem gait test had 2.7 times the risk of two or more falls in the following year.[6]

The importance of observing patients performing some of the above maneuvers cannot be emphasized enough. Direct observation of patients performing position changes and gait maneuvers will identify those at risk of falling and may also identify situations in which falls are more likely to occur. From these observations, the health care provider can arrange for the appropriate rehabilitative and environmental interventions that may decrease the risk of falling. For example, weakness of the leg muscles observed on rising from a chair can be approached by arranging muscle strengthening exercises that are neither too strenuous nor dangerous to the individual, yet which may have benefits beyond the immediate goal of fall prevention. Similarly, balance problems may be amenable to training in the appropriate physical therapy program.

Since most falls among community-dwelling elderly occur in the home, an environmental assessment should be included in the fall assessment. Several published checklists are available for an environmental survey of the home.[16] The survey can be completed by the patient, the family, a physical therapist, a visiting nurse, or the physician if home visits are feasible. General principles to be followed include: insuring adequate lighting in all areas with avoidance of glare and shadows; making all rugs skid-proof and removing wires, furniture, or other objects from frequently traveled paths; installing handrails on stairs and making sure stairs are in good repair with regular surfaces; insuring that shelves are not out of reach and that a safe step-stool is used when necessary; installing grab bars in the bathroom and using no skid surfaces in the tub. Many of these recommendations can be implemented without much expense or time, and may reduce the risk of falling.

Summary

Falls occur commonly enough in community-dwelling elderly, and have sufficient morbidity and mortality, to argue for increased recognition of the problem by physicians. Whereas in the past these falls may have been considered an inevitable part of aging, it is now clear that distinct risk factors can be identified. Physicians can evaluate patients by using relatively simple assessment tools, including the history, physical examination and, most importantly, direct observation of position changes and gait maneuvers used in everyday activities of daily living. Interventions to prevent falls can be based on the individual assessment of risk factors. The implications of effective preventive practices for Rhode Island are substantial given the relatively high percentage of older persons in the state and the limited long term care facilities required to care for the older person whose decline in function follows a fall.

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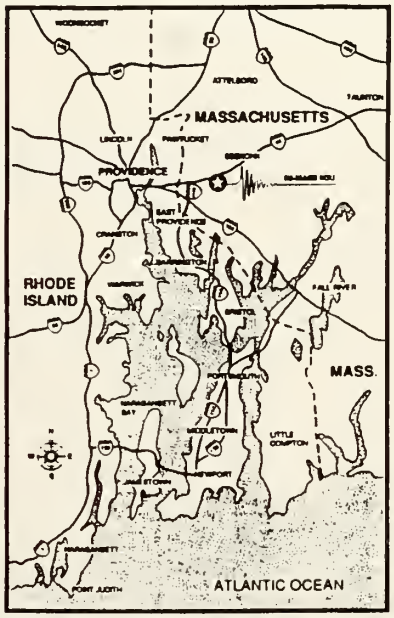

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Assessment of Disruptive Behavior in the Nursing Home: Stories and Strategies

Josef Sternberg, MD, PhD
William M. Whelihan, PhD

What is disruptive in one environment is often not disruptive in another.

Definition of Disruptive Behavior

Case 1:

You have been called to evaluate Daniel S. and make recommendations related to the management of the case. Daniel is free of any acute or chronic disease of significance. His last physical examination one month prior to the consultation was essentially negative; laboratory tests performed were within normal limits. His primary care provider initiated the consult because of loud screaming during the night. On examination, the patient was pleasant and cooperative; his physical examination did not reveal any pathology. He was oriented to person, but couldn't give correct year, date, and day of the week. He was unable to answer correctly any question with respect to place; he made several mistakes on spelling and calculation, and refused to finish the Mental Status Examination.

To everybody who has experience with patients in nursing homes the situation described above is not unfamiliar. Management of behavioral problems in the long-term care setting is one of the most complex and difficult tasks the primary care provider faces in dealing with functionally impaired nursing home patients.[1,2] Daniel S. from Case 1, however, is not a nursing home resident. He is the 4-year-old son of one of the authors; the boy has had nightmares, a well-known (and accepted) phenomenon in this age group. We present this case to illustrate the point that despite the fact that disruptive behavior is a very common phenomenon in long-term care, precise definitions are lacking. These behaviors have been labeled in a variety of ways, eg, aggressive, assaultive, noisy, socially inappropriate, but only recently has the term "disruptive behavior" become widely accepted in the geriatric and gerontological literature. We also prefer this term because of its less restrictive qualities.

For the following discussion we propose the following definition:

Disruptive behavior is a behavior that is perceived to be inappropriate and disruptive by the individual who observes the behavior.

This relatively simple definition implies that:

a) The behavior has to exist.
b) It has to be observed.
c) It has to be registered.
d) It has to be perceived.
e) It has to be judged.

The importance of the behavior existing is self-explanatory. An often overlooked aspect of behavioral problems is that the behavior has been observed by another person. Many different kinds of bizarre and aberrant behaviors remain unobserved if they are exhibited by individuals living alone in the community. If such a person changes his or her living arrangement, for example, moving from a house to a high-rise apartment complex or to a nursing home facility, and continues to display these behaviors, they may then become a problem because they are then *observed.*

ABBREVIATIONS USED:
ADL: activities of daily living

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That the behavior has to be registered is also logical because if a behavior exists, and is observed but not registered in the observer's consciousness, it cannot be disruptive to this observer. Here again certain types of behavior, some of them very benign indeed, which are not registered in one setting may become registered as disruptive in another. For example, many people have the habit of loud singing or even screaming in the shower. There shouldn't be anything necessarily disruptive about this. Some people have the habit of taking a shower at 4 am and this is not disruptive either. But if the same person who used to take a shower at 4 am, singing and screaming for years living alone or with an understanding spouse, adheres to the habit while moving to a high-rise apartment, this habit will be registered by a disturbed next-door neighbor.

The last points in our definition of disruptive behaviors are that, once observed, those behaviors have to be judged or perceived to be disruptive. Judgment of a behavior by an observer is influenced by cultural, secular, and demographic characteristics of the observer. (One has only to think of different persons observing a kissing couple on a park bench to realize how extremely wide the palette of perceptions and judgments can be.)

In terms of eventual perception and judgment it follows that:

a) Expectations of consequences can be substituted for actual consequences.
b) Observer's past experience may influence the judgment.
c) Observer's level of responsibility may influence the perception.
d) Facility's rules and regulations may override observer's impression and judgment.
e) Outside pressure (families, insurance companies, legal implementations) can influence facility's rules and regulations.

This discussion makes it clear why the vignette presented in Case 1 is not an example of a disruptive behavior. The nightly disruption by the boy's screaming did exist; it was observed by his parents and registered by their sleepy brains but not perceived or judged as disruptive. It was rather accepted as an unpleasant but normal stage in child development.

Obviously, disruptive behaviors occurring in long-term care facilities are not "cute oddities". Taking the approach we suggest may be helpful in identification of behaviors that are not too disruptive, on second thought, at least.

Kinds of Disruptive Behaviors

The authors took part in a study of 167 nurses working in acute care hospitals and nursing homes with the aim of identifying patients' behaviors perceived as disruptive by nursing personnel.[3] It was found, not surprisingly, that overtly assaultive behaviors such as "strikes out at staff", "physically abuses others", "harms self", or "removes Foley catheters, intravenous lines, nasogastric tubes" scored the highest among potentially disruptive items. Screaming, yelling, spitting out medicine or food, wandering, and attempting to undo restraints scored as moderately disruptive. Perceived as significantly less annoying, but still disruptive, were behaviors like "hoards items", "resists physical examination", and "repetitive vocalization". Of interest was the finding that depending on the setting, acute hospital versus nursing home, there were differences in perception of the degree of disruptiveness. Items related to acute medical care such as "removes Foley catheters, iv lines", "restless agitation", were perceived as much more disruptive by acute hospital nurses, whereas items like "attempts to undo restraints", "refuses to do ordinary things, uncooperative" were perceived as much more disruptive by nursing home nurses and nursing aids. We also found that nurses' level of responsibility influences the perception of disruption by the patient. For example, in our study registered nurses were more upset by patient's refusal to take medications, whereas nurse's aides were more upset by patients spitting out food.

Actual behaviors that are considered as disruptive in long term care facilities can happen in a wide variety of ways.[4] On closer examination, however, most of those behaviors can be reduced to three types that harbor the potential of:

1) Endangering the residents
2) Endangering other residents
3) Endangering or disrupting the staff

With respect to particular kinds of behaviors found to be disruptive, most can be included in one of the following categories:[3]

1) Disturbed physical behavior
2) Resistance to restriction
3) Resistance to physical care
4) Disturbed verbal behavior
5) Disturbed social conventions

Obviously one patient can exhibit several different disruptive behaviors at the same time. We have assessed a sample of

Table 1	Percent with disruptive behaviors	
ADL	independent — 13.9%	total care — 40.3%
walking	independent — 25.9%	unable — 29.3%
communication	communicates — 19.0%	unable — 43.9%
continence	continent — 17.0%	incontinent — 37.5%
cognition	intact/mild — 13.1%	severe dementia — 40.4%

3,352 Rhode Island nursing home residents for presence of disruptive behavior.[5] It was found that during the two week observation period more than one out of four (26.2%) exhibited one or another kind of disruptive behavior. Approximately 18% of the sample presented with one disruptive behavior only, another 6.5% had two disruptive behaviors, 1.5% had three kinds, and only 0.5% had more than three. The most common kind of disruptive behavior, seen in 11.6% of the sample, was "abusiveness", followed by "noisiness" (9.7%), and wandering (6.2%). Less frequently observed disruptive behaviors included "disrobing", "inability to avoid simple dangers", "agitation", "sexually inappropriate behavior", "hoarding", "stealing from residents or staff", "resistance to care", and "general uncooperativeness".

Disruptive behaviors are therefore very common and often problematic phenomena that have not been well described or studied in a rigorous way. They vary from relatively benign to severely disruptive, but they appear to affect observers in different ways. What is disruptive in one environment is often not disruptive in another. Yet, invariably, these behaviors are treated in only one way typically leaving the disruptive patient restrained and isolated. An analysis of patients with disruptive behavior may help to address the question of whether there are underlying causes that may more appropriately be the focus of evaluation and treatment.

Characteristics of Residents with Disruptive Behavior

Case 2:

Mrs. Susan L. has been a resident of Pineapple Cove Manor for over 12 years. She has had a cerebro-vascular accident in the past, suffers from diabetes mellitus, congestive heart failure, chronic renal failure, hypertension, and dementia. She is incontinent of urine and stool, requires total care in ADLs, and is nonverbal in communication. Most of the time she is in bed, screaming almost constantly, or calling "hurry up, hurry up, hurry up".

This imaginary case is a stereotype of a nursing home patient with disruptive behavior. Are all patients with disruptive behavior like Mrs. L.?

... severe dementia alone or in combination with severe functional impairment does not inevitably lead to disruptive behavior.

In the study of disruptive behavior in Rhode Island nursing home residents,[5] we analyzed the association of disruptive behavior with several functional impairments. The results (Table 1) summarize the findings obtained from interviews and chart reviews of over 3,500 residents in a representative sample of Rhode Island nursing homes.

As expected residents with significant functional and/or cognitive impairments exhibit disruptive behavior more often than residents without impairments. There is an especially strong and not surprising association between disruptive behavior and dementing disorders. Less expected, however, was the fact that severe dementia alone or in combination with severe functional impairment does not inevitably lead to disruptive behavior. Over 10% of residents with disruptive behavior in our sample had neither dementia nor ADL impairments nor impairment in communication. On the other hand, 60% of all residents with severe dementia did not exhibit disruptive behavior. This implies that a health care provider's stereotyped expectation of disruptive behavior in a particular category of patients can be not only erroneous but actually counterproductive for assessment and intervention.

Assessment of Correctable Causes of Disruptive Behavior

Case 3:

Mrs. Anna B. was admitted to the Pleasant View Rest Home a few weeks prior to the consult. She is suffering from a slowly progressive dementing disorder which was evaluated at the First National Hospital and diagnosed as dementia, Alzheimer's type. Prior to admission Mrs. B. was living on her own in an apartment for the elderly. Her family (a niece living in Connecticut) initiated the admission because Mrs. B. was found lost in the neighborhood and police were called to bring her back home. In the nursing home Mrs. B. started to exhibit disruptive behavior shortly

after admission. She refused help in dressing and bathing, spit out her medicine, and on several occasions tried to hit the nursing staff.

Case 3 illustrates a relatively common and well-recognized pattern of disruptive behavior in patients with cognitive impairment: the so-called "relocation syndrome". Most nurses in chronic care facilities are familiar with the problem and will help the patient to adjust to the new environment. In order to make a correct assessment and a successful care plan, the nurses had to have the expertise of recognizing the "relocation syndrome", had to have reasonable expectations that the behavior would change for the better over time, and had to be able to help with the adjustment.

The situation described above is an example of "correctable" or "reversible" behavioral problems seen in long-term care facilities. Listed below are several other causes that might provoke or aggravate disruptive behavior (most frequently, but not necessarily in the context of dementia):

a) Non-specific presentation of an acute disease
b) Exacerbation of a chronic disease or condition
c) Undiagnosed pain
d) Physiological needs (hunger, thirst, cold, etc.)
e) Depression, anxiety, fear, panic attacks
f) "Relocation syndrome"
g) External irritants (noise, bright light, etc.)
h) Medications
i) Psychiatric disorders, notably adjustment and personality disorders

By just reading the list, one realizes that the causes, although quite different in etiology, have several common characteristics. First, most of them are acute or new causes superimposed on pre-existing impairments. Secondly, most of the causes represent a change in patient's condition, and the behaviors should be seen as a manifestation of the change in condition. In other words, the disruptive behavior could be the symptom of the new disease, not the disease itself. Thirdly, some of those causes, eg, medication effects, harbor the potential of further deterioration in patient's condition if not recognized.

The need to control these disruptive behaviors in the least restrictive manner is evident in order to provide quality care in a quality environment for all concerned.

Many essentially heterogeneous causes can lead to similar manifestations of disruptive behavior. For example, a resident can be aggressive and agitated because of unrecognized physiological needs, but the same patient can be as aggressive and agitated because of an occult infection. And since there is not just one possible cause for change in behavior, there cannot conceivably be just one uniform approach to management of the disruptive behavior. The following is suggested as a useful approach in evaluating the nursing home patient with disruptive behavior:

1) Secure a good history of the behavior (Is it new? Is it different? Was it ever seen in the past? Was a reason identified in the past? Was there an intervention? What was the response?)
2) Assess for acute illness or exacerbation of chronic diseases (urinary tract infections, pneumonias, and enteric disorders including obstipation).
3) Review medications (with special attention to any recently started medications)
4) Evaluate and adjust the physical and social environment
5) Behavioral interventions with clear and consistent responses to both positive and negative behaviors
6) Treatment trial of anxiety or depression if suspected
7) Discrete and cautious use of neuroleptics, with clearly identified target symptoms for monitoring and assessing of the response
8) Staff education
9) Family education
10) Legal consultation in case of conflict between the perception of patient safety by the facility staff and patient's behavior

Disruptive behaviors are major problems in institutional setting affecting patients, family members, and staff. The need to control these disruptive behaviors in the least restrictive manner is evident in order to provide quality care in a quality environment for all concerned. What is expedient is often not what is better for patients and staff in the long run. The potential causes of disruptive behaviors listed above are all treatable and with treatment disruptive behavior can often be controlled or eliminated. Unfortunately, the disruptive behavior typically becomes the focus and interventions follow with chemical or physical restraints rather than assessing and treating the underlying causes of these behaviors.[6,7]

. . . disruptive behavior typically becomes the focus and interventions follow with chemical or physical restraints rather than assessing and treating the underlying causes of these behaviors.

There are no magic medications to control disruptive behavior.[8] There are no secret tricks to manage all possible situations in long-term care facilities, either. We do hope, however, that applying the strategies we suggest and using the steps of assessment we have listed above may not only help in identifying correctable causes of aberrant behavior, and thus help to initiate appropriate interventions, but also reduce the use of psycho-active medications and restraints. And this, in turn, can be a very rewarding experience for the nursing staff, social workers and physicians involved in the care of the patient.

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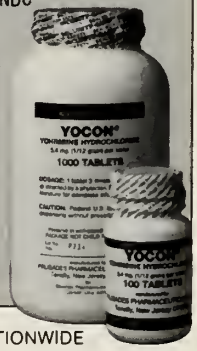

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Ageism Among Physicians: Fundamental Questions

Mark Traines, MD

. . . the elderly should be encouraged to be themselves, whatever they conceive that person to be, rather than living according to any aging stereotype.

For about two years I have exposed senior medical students from Brown to healthy older adults at the North Providence Senior Center. One reason for this community involvement is to allow the medical students to see their previous clinical experiences with frail, hospitalized elderly within the context of the larger community of older people.

After a brief orientation to the Center, its background, and purpose, the students are free to roam and engage the seniors in conversation and then return for a debriefing. At this time, they present their observations as well as their feelings about aging, especially as they related to aging within their own families. Out of these sessions, two very relevant questions emerge.

The first question is "How old do you see yourself?" or "At what age do you perceive yourself?" This question of self-perception has been posed to about 400 individuals, usually medical students and elderly. Approximately 15 have stated that they see themselves older than their chronological age; perhaps twice that number see themselves as old as their chronological age (usually 25-year-old medical students). The remainder, the vast majority, see themselves younger than their chronological age; the elderly often see themselves 20 to 30 years younger with the ages "50" to "60" being quoted most often. (One elderly man said he saw himself "73"; he was 93.)

The importance of this question lies in the way society views aging and the elderly. In general, society values aging negatively. The negative values become ingrained in our self-perceptions and attitudes towards the elderly and aging. Actions taken on the basis of negative attitudes frequently have negative connotations for the object of those attitudes. If the object of negative aging attitudes is oneself, there may be a reluctance to seek medical care for what is perceived as "age-related", ie, "irremediable". If the holder of this perspective is a physician and the object is his or her patient, then potentially remediable problems may be ignored as "old age", thus leading to under-diagnosis and under-treatment.

The additional problem that arises from the negative self-perception of aging is the need to fit the stereotype, that is, to create the self-fulfilling prophecy. An older person may feel that aging requires decreases in activity levels and enjoyment of life and thus act in accordance with these perceptions. It appears that many or most healthy elderly do not perceive themselves to be "old" despite their chronological age; they act more as someone of "youth". These individuals frequently have greater enjoyment of life than one would expect from an aging stereotype. They do not reject the negative age stereotype but rather do not see it as describing them. This understanding of the limitations of the negative societal attitudes toward aging seems to be learned while aging. And thus aging as we negatively think of it is, for many healthy elderly, a lie.

Based on these observations, it seems reasonable to encourage medical students not to prejudge their patients by comparing them with a false stereotype of age, but instead to allow them to reveal the full extent of their individualities. Additionally, the

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elderly should be encouraged to be themselves, whatever they conceive that person to be, rather than living according to any aging stereotype. To distressed but capable elderly, it is sometimes orienting advice.

The second question, the final one of each session with the medical students, is "What will you require to have a feeling of self-esteem or self-fulfillment as a physician?" This question is usually greeted with puzzled expressions; it is a question that has not previously been raised in their experiences. Ultimately, the group answers; one student initiates the answer and the rest elaborate on the same theme. The answers center about keeping up-to-date, the ability to cure illness, and having their patients know that they care about them. (One group defined their self-esteem as not making any mistakes!)

Aside from the obvious, the aim of this question is to examine the stereotype of the physician as it impacts upon the stereotype of the aged. We are trained within the Biomedical Model which strives to objectify a patient's discomfort and distress in order to diagnose the complaint and provide the appropriate therapy with an aim toward curing the ailment. But, as is known by any practitioner, the problems of the elderly do not fall neatly into the Biomedical Model. Chronicity of illness, multiple interacting disorders, and important and disabling psychosocial phenomena are frequent complicating issues in the care of the elderly and fall more within the Biopsychosocial Model. These are areas in which most physicians feel neither comfortable nor well-versed.

To the medical student and physician schooled in the Biomedical Model, such problems are frustrating. These physicians may begin to dislike caring for some elderly due to their needs for uncommon approaches or greater time. Thus the elderly may become a negating experience to the self-esteem of some physicians. In time, those physicians may negatively interact with their elderly patients.

Aside from external changes and an increased vulnerability to disease, little can be ascribed to aging; we create more dilemmas by labelling problems as age-related, and hence not requiring evaluation or treatment, than by not ascribing any problem to aging alone . . .

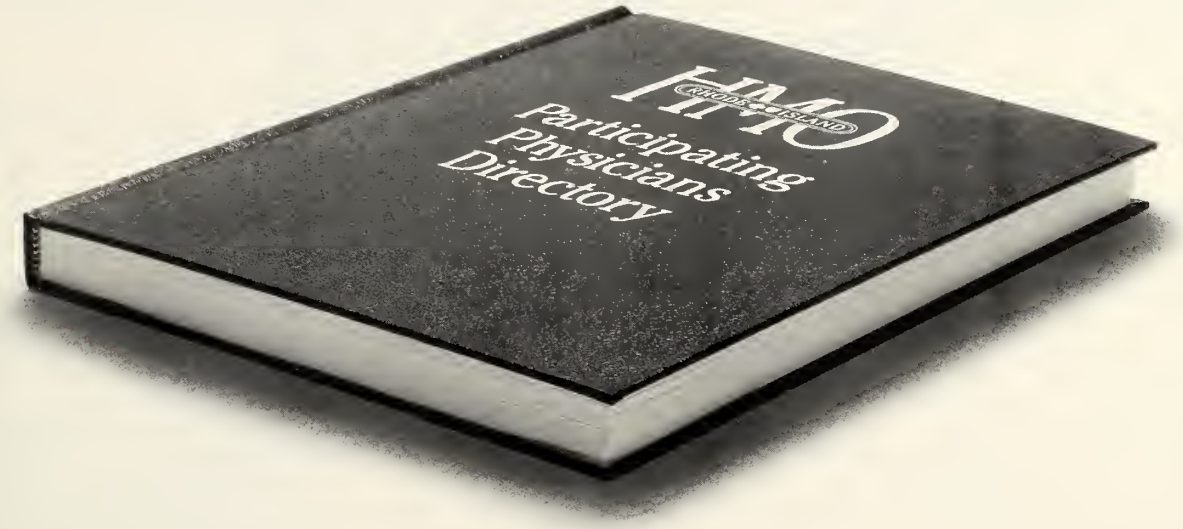
This cycle of events may occur from the way some physicians define themselves. There seems to be an internalized job description which professionals use to define who they are, what it is that they do, and, by extrapolation, what will give them a sense of accomplishment. If a physician has a narrow interpretation of his role and a similarly narrow definition of what aid he can offer to his patients, perhaps due to a strict adherence to the Biomedical Model, then there is a high probability that he will be frustrated by the complex needs of the frail elderly. He may then seek to avoid contact with this portion of his patient population. A physician who describes his purpose in broader terms will be more likely to feel success in caring for the elderly despite even modest degrees of improvement. This physician is more likely to enjoy his relationship with his elderly patients and they are more likely to benefit from the association. The medical students usually expressed the desire to have a broader relationship with their elderly patients including demonstrating their caring feelings for them, a hopeful sign in fourth year students.

The discussion with the students brought forth the concept that a physician could have the goal of improving a patient's sense of well being and could thus practice a range of therapeutic activities including education and counseling, reassurance and caring, and functional assessment in addition to diagnosis and treatment. The students often felt that these functions were as important to their future roles as any traditional medicine they had learned.

In summary, the lessons the students took away included the following:

1) Aside from external changes and an increased vulnerability to disease, little can be ascribed to aging; we create more dilemmas by labelling problems as age-related, and hence not requiring evaluation or treatment, than by not ascribing any problem to aging alone, and thus evaluating it;
2) The elderly are individuals, more different from one another than younger people are from each other and yet more similar to younger people than different from them;
3) Function is not lost without a reason; restoring function is an optimal goal;
4) Role definition plays a large part in determining one's degree of professional self-esteem and, ultimately, patients' esteem and well-being.

This book has a happy ending.



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CONTEMPORARY PROBLEMS IN MEDICINE

Malpractice Litigation and the Physician

Howard S. Sturim, MD

Statistics suggest that there are few doctors who practice bad medicine. The problem is that the system is driven by economic rewards that place little if any penalties upon the plaintiff when an action is taken without merit and they ultimately lose their case.

Malpractice litigation is now one of the greatest growth industries in the United States. Billions of dollars are paid in premiums annually for malpractice insurance and only 28% of that amount is ever paid out to patients. The majority of the monies spent for malpractice insurance are absorbed by the legal system for attorneys' fees, litigation aids, court costs and the investigation of cases by insurance companies. In the state of California, a surgeon can expect to be sued once every four years, a plastic surgeon once every two years. The director of an insurance company in California which insures only plastic surgeons in that state says that in 82% of the malpractice actions no money is paid out of any sort; and, of those that go to trial, 75% are won by the defendant.[1] The costs for malpractice premiums continue to escalate nationwide because of the number of suits and the costs of preparing the defensive posture of the doctor/defendant.

There are certain truths we must ackowledge. There is malpractice in the medical profession just as there is in the legal profession, accounting profession and other professions; however, if the rewards were not potentially so great for the legal profession (both for the plaintiff and defense attorneys), the problem would not be as extraordinary in the United States as it is today.

The initiation of legal action is the principal means of obtaining access to insurance funds should any mishap occur in the medical arena. If the patient suffers an injury while under treatment by a physician, the patient may initiate a malpractice complaint with the intent of securing compensation. The patient sets into motion a process, the aim which is to prove that the physician, either by omission or co-omission, departed from the standard of care owed the patient and caused the injury.

The popular understanding by the lay public of the intent of the law is to punish the malpractitioner and enforce standards upon the physician. The truth is that the direct intent of the law is not to discipline

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erring doctors but to obtain compensation for the injury. The attorney serves as the mechanism to obtain this compensation, and, in doing so, becomes part of a growing industry with great rewards despite the limited number of cases that are successfully adjudicated against physicians. This one attorney stated to me, "It is the only sport in which a player can bat .200 and still become a millionaire." The explosion of suits are often explained with the statement that bad doctors are finally being brought to the bar of justice. This position is very popular and uncontested in a population that is experiencing the availability and access to high-quality medical care. Americans live longer and live healthier lives, and even people with limited resources today have access to technological advances. The physician is under increasing assault by allegations of malpractice as the patient pool and the age of the patient population grows, and the demands upon the physician increase.

Statistics suggest that there are few doctors who practice bad medicine. The problem is that the system is driven by economic rewards that place little if any penalties upon the plaintiff when an action is taken without merit and they ultimately lose their case. A reputable, local surgeon was informed by his attorney after successfully defending a malpractice action, "Congratulations doctor, you won." The surgeon turned to the attorney and said, "Exactly what did I win? I rendered good care, I charged a reasonable fee, I have had to give up a week of my life and practice, I have had emotional strain upon myself and my family and it hasn't cost the patient a penny. What exactly did I win?" The plaintiff's attorneys state the contingency fee basis of payment to the attorney is "the poor person's key to the courtroom." It is interesting that poor people can be treated in the medical system without a contingency fee and they have access to physicians and hospitals despite their financial position.

Social factors also contribute to the increase in litigation; as more patients enter the health care system funded by third party insurance through work or health care, the increased potential for favorable outcome from previously life threatening conditions is coupled with an increased risk of potential damaging side effects.

In the case of a physician, the plaintiff must show that the doctor failed to utilize that degree of knowledge, care, and skill which would be exercised by another well-qualified physician under the same or similar circumstances.

According to David W. Horan, MD, JD, a prominent St. Louis plaintiff's attorney, there are two types of medical mistakes. One type is malpractice or medical professional negligence; the other is not. If a physician is presented with a number of possible choices for the diagnosis and/or treatment of a patient and he chooses the wrong one, he makes a mistake in judgment. This type of mistake is not malpractice. If, however, a physician acts in a manner which is unskillful or unreasonable under the circumstances, and as a result of his mistake, a patient is injured, his action is negligent and can be the basis of a medical-professional negligence suit.[2]

It is not enough for a plaintiff-patient to prove that because of medical treatment, he got a bad result. The plaintiff must demonstrate that the physician or health care provider failed to act in accordance with the standard of care. In the case of a physician, the plaintiff must show that the doctor failed to utilize that degree of knowledge, care, and skill which would be exercised by another well-qualified physician under the same or similar circumstances. The testimony of another physician, who is familiar with the particular medical discipline in question, must be provided. The expert physician must testify that, in his opinion, there was a deviation from the standard of care and that deviation caused the injury of which the patient complains. Unfortunately this has given rise to a new industry of professional witnesses, doctors who are available to testify in any state for a handsome fee at the request of the attorney — the "hired gun."

It is commonly stated by malpractice attorneys that they are performing a public service. They are weeding out the "bad doctors", implying that only bad physicians are sued and good ones are not. There is no basis in fact for this position. Despite this "atruistic attitude", if the recovery of sizable funds are not a potential for the plaintiff's attorney, the case would not go forward. It is also stated that malpractice cases are directly attributable to a lack of communication between the doctor and the patient, interrupting the doctor-patient relationship. While there is some degree in truth in this, there are too many external forces brought to bear that influence the patient's decision. The frustration with a result that does not meet the patient's expectations, fees that exceed the patient's initial

expectation, loss of time from employment or loss of job, loss of affection or services from a spouse, feelings of inability to correct or deal with a medical problem, expectation of a great financial reward at no cost to one's self, all contribute to thoughts of malpractice actions on the part of the patient. These feelings fanned by the unrelenting advertising of attorneys in newspapers, on television and radio, and coupled with propaganda from the Trial Lawyers' Association, serve to stimulate suits that years ago were unheard of.

The physician does have some weapons to help him on this battlefield. Besides the obvious need for good training and keeping up to date in one's specialty, being available to one's patient and trying to communicate with them, the most important weapon the physician has on his side are his records. It should be noted that the physicians keep the records and not the patient. The medical record is always regarded by the court as carrying a greater credibility than a patient's undocumented recollections. It is imperative that a physician keep his hospital records and office records as up to date and as accurate and as legible as possible.

Observations and actions should be recorded promptly. The operative note that is written one month after the surgery is held suspect and will be characterized by the plaintiff's attorney as being constructed after the fact and self-serving and that the doctor will not be able to accurately recall the events. Certain words should be avoided in charts and records such as "inadvertent", a term which as defined by Webster implies "oversight or the result of inattention." Political turf battles should not be waged in records, and notes that are written purely defensively can alert a perceptive plaintiff's attorney towards something occurring that might be wrong. Areas in dictation should not be erased, obliterated or destroyed; but rather, a single line should be placed through the error and the correction entered near it and the date and initials of the person making the correction entered. The last and greatest error in record keeping in hospitals are transcriptions which are signed without being read — a fact that most doctors are guilty of. A disclaimer can be entered next to one's signature such as "NR" which translates into "Not Read", or "DBNR" which means "Dictated But Not Read" so that in a court situation the doctor is protected when explaining to the dubious jury that he had signed his name to a document which he had failed to read. The jury does not realize that the doctor may have had to sign thirty or forty documents at a given session and neither has the time nor the interest to read each piece of paper individually. Entries should not be made in a record that are not in chronological order. This also alerts the plaintiff's attorney to a defensive posture by the doctor and the fact that he is trying to excuse an action that occurred previously. It goes without saying that records should never be altered or destroyed. By the time the doctor is alerted to a malpractice action, many of these records may already be in the hands of the plaintiff's attorney.

The physician is particularly vulnerable in a malpractice action since he is taught from his earliest days in medical school to be a caring, self-sacrificing individual, to "do no harm." He is conditioned with guilt feelings to sacrifice for his patient and when confronted with malpractice litigation, there is considerable emotional destruction, as if a trust has been violated.[3]

The very act of being served with papers, accusing the physician of malpractice causes significant stress and is a considerable assault on the physician's self-esteem. He is being told in public that he is not a good doctor and not a caring person. Regardless of the outcome, the accusation itself causes a stress that is destructive. The experience is an isolating one, filling the physician with self doubt and guilt. Although the physician may be careful, caring and confident, he has an exaggerated sense of responsibility which makes it difficult to deal with this type of frontal assault.

The individual doctor served with a complaint alleging negligence usually reacts with a strong emotional outpouring. The most common initial reaction is one of severe anger. The initial feelings are of hurt that arise from the breach of a bond or trust and feelings of betrayal. The doctor-patient relationship which is the foundation of the practice of medicine has been violated and the medical practitioner feels the assault very keenly. Most doctors want to help people and are not comforted when told this is "part of practicing medicine in today's world." The very nature of the practice of medicine makes for a certain vulnerability and sensitivity to the patient. The doctor invests emotionally as a human being in his patient and he cannot continue to do so if he is always at risk. Studies have shown that when a doctor is sued, he automatically distances

himself consciously or unconsciously from patients. Respondents in a large survey report intense feelings of anger then progress into individual feelings of depression, insomnia, headache, excessive alcohol abuse, as well as development and/or exacerbation of previously diagnosed physical illnesses.[4] The scar placed on the physician/defendant's psyche is permanent and the degree of symptoms that he develops vary. Mechanisms are developed by the doctors to cope with the pain of the experience; however, whether or not the physician wins or loses the case, the outcome is still the same and the doctor's practice of medicine will be affected permanently.

One major difference has occurred in the last ten years. A survey run in 1982 showed that only 11% of physicians mentioned they talked to any peer about a malpractice case or being sued.[4] In part, that happened because the physician was told by his defense counsel not to discuss the case with anyone else. In part, it happened because of the use of denial, so the physician could continue to function. The doctor was also afraid of being judged by his peer group, of being reminded of the pain of the litigation and not trusting his peers' reactions to his plight. It is important that the case be discussed with his peers to reassure him that he is not a bad person, that he is a careful and caring doctor, to rebuild the psychological damage that is being done by the very action of the suit. As the number of suits have become more frequent, discussion by doctors with their peer groups have increased and this important mechanism has proved to be an effective tool in helping the doctor through his trying experience.

The Rhode Island Medical Society has an excellent Impaired Physicians Committee that deals with doctors who are affected by various problems such as drug abuse, alcohol abuse, and burnout. The Committee functions confidentially to help the physician and restore him to a productive role in society. A doctor undergoing malpractice litigation is also impaired, but not in the same way. The natural reaction after the anger and depression that follows a malpractice action is to change one's practice methods, to limit one's practice to "safe areas" and to turn away patients with problems that were within his practice scope previously because of the fear of risking additional litigation. Twenty years ago, when a patient sought a physician's aid, the physician's position intuitively was, "What can I do to help this patient?" Today, it is changing to, "Is this patient going to be an adversary?" Would it not be appropriate for our medical society to start a counseling group for physicians undergoing malpractice litigation to help them through this trying time? Are we not allowing the resources and skills of well-trained physicians to diminish because we are not sensitive to these problems? The organization of support groups within the medical community for both the physician and their families can function to provide direct emotional support as well as educational support to help the physician and his family deal with this severe stress.

We must make several realistic assumptions. The problem is not going to go away, and the number of malpractice suits will either stay the same or increase since there is no motivation on the part of legislators or government officials to interfere with this process. Since malpractice is geared to compensation for the plaintiff and his or her attorney and not geared to judge the competence of the physician, it is imperative that we as a medical society respond by active support of our membership in these situations. It is not acceptable for the individual physician to assume that because he may be in a specialty or practice that by its very nature incurs a low incidence of suits, that he does not have to be concerned or involved with this problem.

"If I am not for myself, then who will be for me?

If I am only for myself, then what am I?

And if not now, when?"

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HEALTH BY NUMBERS

Rhode Island
Department of Health
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Director of Health

Injury Mortality among the Elderly

Injuries, a major national health problem, do not occur randomly, but are predictable and preventable events. Certain population groups are at particularly high risk of injury. For example, males of all ages have higher injury mortality rates than their female counterparts. In particular, injury mortality rates among the elderly (ages 65 and older) in Rhode Island have been higher than in any other age group for both males and females during a recent ten-year period.[1] (Figure 1)

The injury problem among the elderly has not received the attention that has been given to injuries among young adults, the other age group at high risk (ages 15-34). There are several reasons for this. First, injury control programs are more likely to focus on younger persons because of the perceived benefits of preventing "premature" mortality. Furthermore, the elderly face many other risks to their health. Injuries accounted for only 2% of elderly deaths in the state in 1988, compared with 60% of deaths among young adults, although the number of injury deaths in the two age groups was nearly equal. Finally, the pattern of fatal injuries is different among the elderly compared to young adults. In 1988, fully five out of six injury deaths among residents ages 15-34 were attributed to motor vehicles (41%), suicide (29%), and homicide (14%). Only one out of three elderly injury deaths were from these causes — motor vehicle (21%), suicide (10%), and homicide (2%).

Among the state's elderly, both males and females, the leading cause of injury deaths is falls.[1] For females, falls accounted for nearly half of all injury deaths during 1979-1988. (Figure 2) Among males the proportion was above one-third. (Figure 3) In general, falls leading to injury among the elderly occur during the course of daily activities, such as walking, bathing, climbing stairs, or getting into or out of bed or a chair. Typically, death followed a period of medical care in which the underlying frailty of the victim proved decisive. The critical impact of frailty is reflected in the high mortality rate from falls among the very elderly in Rhode Island; the mortality rate among those ages 85 and over (129.2 per 100,000 population in 1984-88) is nearly seven times that for persons ages 65-84 (19.0) and 24 times the rates for all ages (5.4).[1]

Injury is a health problem among persons of all ages; among the elderly, the risk of death is increased by their reduced ability to heal and recover from injuries, rather than by any increased participation in risky activities. Injury control programs must take this fact into account when developing intervention strategies for the elderly.

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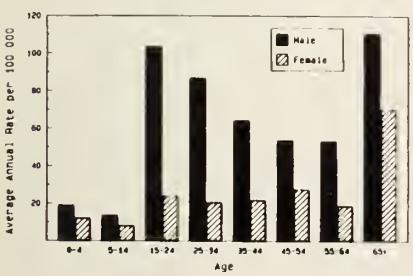

Figure 1. Injury Mortality Rate by Age and Gender, Rhode Island, 1979-1988

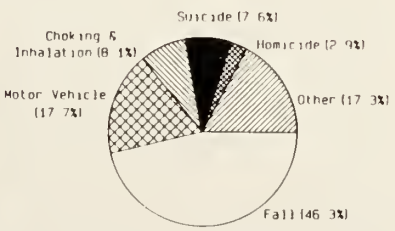

Figure 2. Detailed Cause of Injury Mortality, Females Ages 65 and Over, Rhode Island, 1979-1988

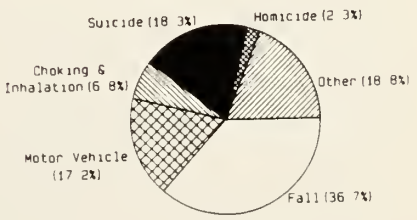

Figure 3. Detailed Cause of Injury Mortality, Males Ages 65 and Over, Rhode Island, 1979-1988

Submitted by the Injury Prevention Program, Ann Thacher-Renshaw, Project Director. Health by Numbers is edited by Jay S. Buechner, PhD, and William J. Waters, Jr., PhD.

Monthly Vital Statistics Report

Provisional Occurrence Data From the Division of Vital Records

H. Denman Scott, MD, MPH
Director of Health

Roberta A. Chevoya
State Registrar

Vital Events	Reporting Period October 1990 Number	12 Months Ending with October 1990 Number	Rates
Live Births	1,210	15,822	15.9*
Deaths	818	9,739	9.8*
Infant deaths	(7)	(128)	8.1#
Neonatal deaths	(6)	(98)	6.2#
Marriages	921	8,178	8.2*
Divorces	310	3,832	3.8*
Induced Terminations	637	6,866	497.2#
Spontaneous Fetal Deaths	117	1,152	72.8#
Under 20 weeks' gestation	(109)	(1,068)	67.5#
20+ weeks' gestation	(8)	(83)	5.2#

*Rates per 1,000 estimated population

#Rates per 1,000 live births

Underlying Cause of Death Category	Reporting Period July 1990 Number (a)	12 Months Ending with July 1990 Number (a)	Rates (b)	YBLL (c)
Disease of the Heart	298	3,523	353.0	5,224.5
Malignant Neoplasms	236	2,450	245.5	6,864.5
Cerebrovascular Diseases	53	606	60.7	722.5
Injuries (Accident, Suicide, Homicide)	26	442	44.3	9.632.5
COPD	28	374	37.5	406.0

(a) Cause of death statistics were derived from the underlying cause of death reported by physicians on death certificates.
(b) Rates per 100,000 current estimated population of 998,000.
(c) Years of Potential Life Lost (YPLL)

NOTE: Total represents vital events which occurred in Rhode Island for the reporting periods listed above. Monthly provisional total should be analyzed with caution because the numbers may be small and subject to seasonal variation.

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Am Fam Phys 1987;36:133-140

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Brief Summary.
Consult the package literature for prescribing information.
Indication: Lower respiratory infections, including pneumonia, caused by *Streptococcus pneumoniae*, *Haemophilus influenzae*, and *Streptococcus pyogenes* (group A β-hemolytic streptococci).
Contraindication: Known allergy to cephalosporins.
Warnings: CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS. PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUOE ANAPHYLAXIS.

Administer cautiously to allergic patients.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:
• Discontinue Ceclor in the event of allergic reactions to it.
• Prolonged use may result in overgrowth of non-susceptible organisms.
• Positive direct Coombs' tests have been reported during treatment with cephalosporins.
• Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
• Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
• Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:
• Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of **serum-sickness-like** reactions have been reported with the use of Ceclor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, **serum-sickness-like** reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy, occasionally these reactions have resulted in hospitalization, usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symptoms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.
• Stevens-Johnson syndrome, toxic epidermal necrolysis, and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.
• Gastrointestinal (mostly diarrhea): 2.5%
• Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
• As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
• Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.
• Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.

Abnormalities in laboratory results of uncertain etiology.
• Slight elevations in hepatic enzymes.
• Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
• Rare reports of increased prothrombin time with or without clinical bleeding in patients receiving Ceclor and Coumadin concomitantly.
• Abnormal urinalysis; elevations in BUN or serum creatinine.
• Positive direct Coombs' test.
• False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinitest® tablets but not with Tes-Tape® (glucose enzymatic test strip, Lilly).

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.

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